

FIG.1A

FIG.1B

FIG.1C

PRIOR ART

PRIOR ART

PRIOR ART

SOP

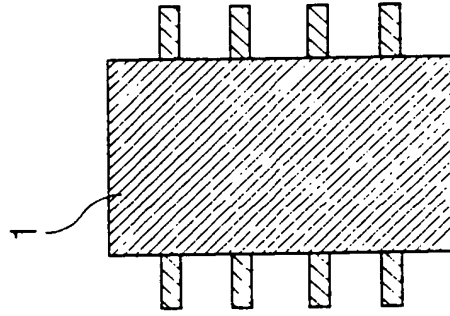
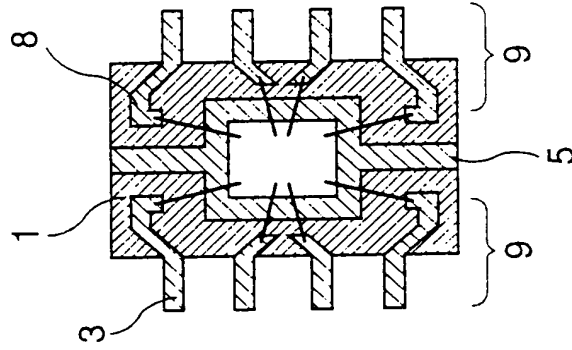
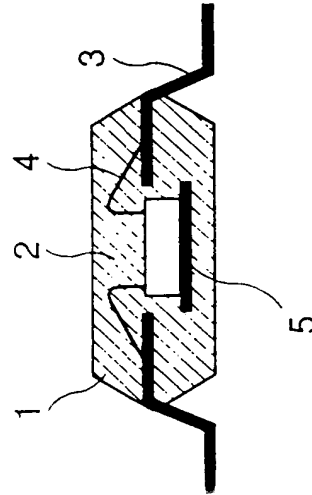


FIG.2  
PRIOR ART

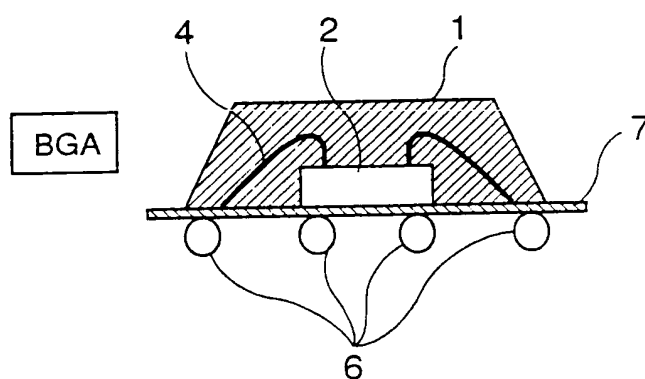


FIG.3

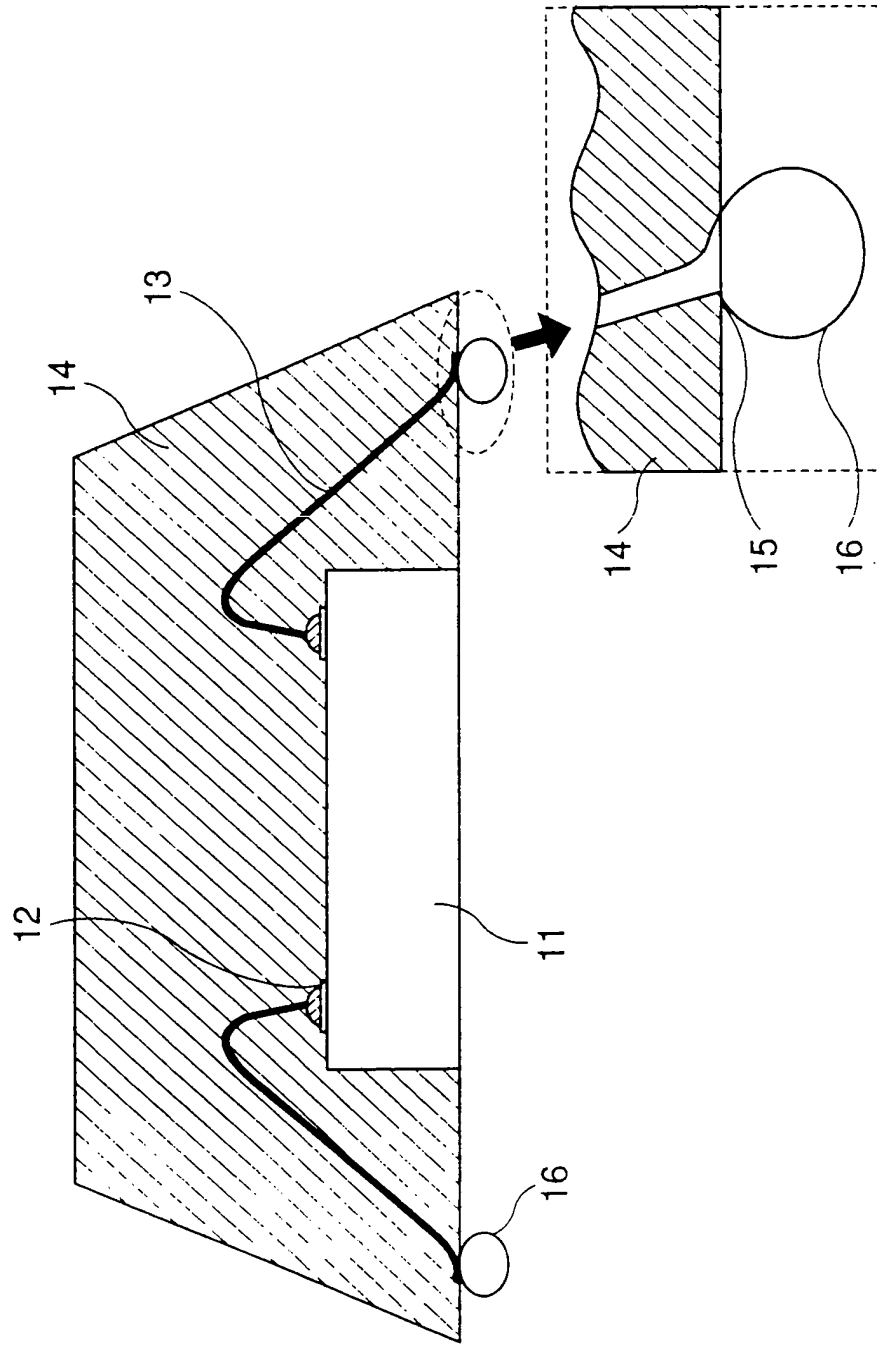


FIG.4

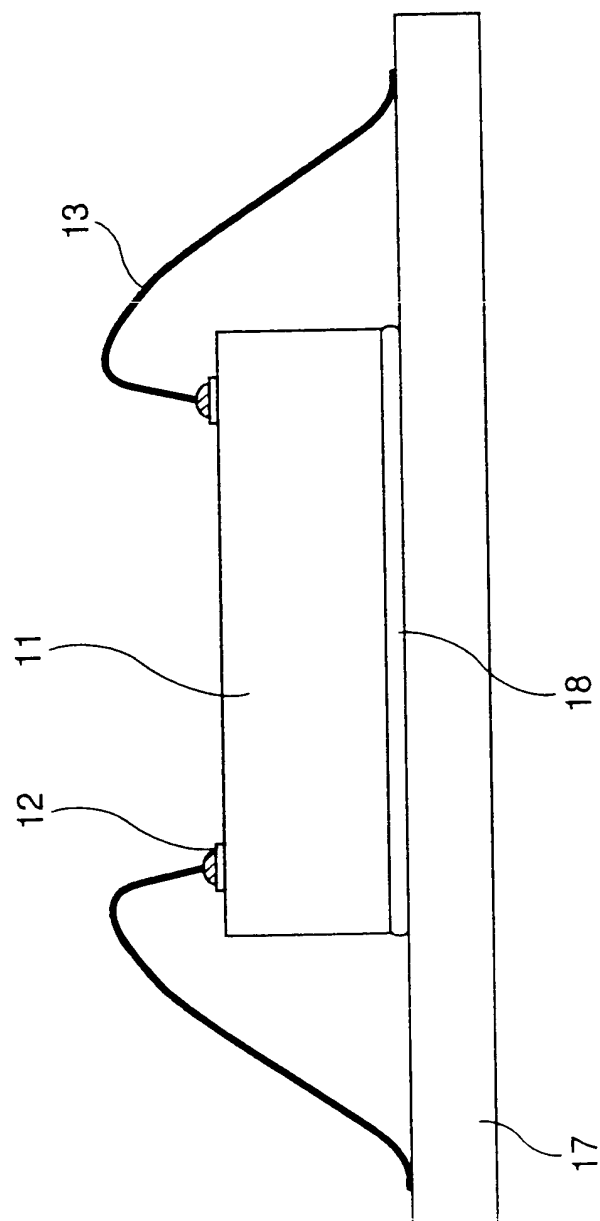


FIG.5

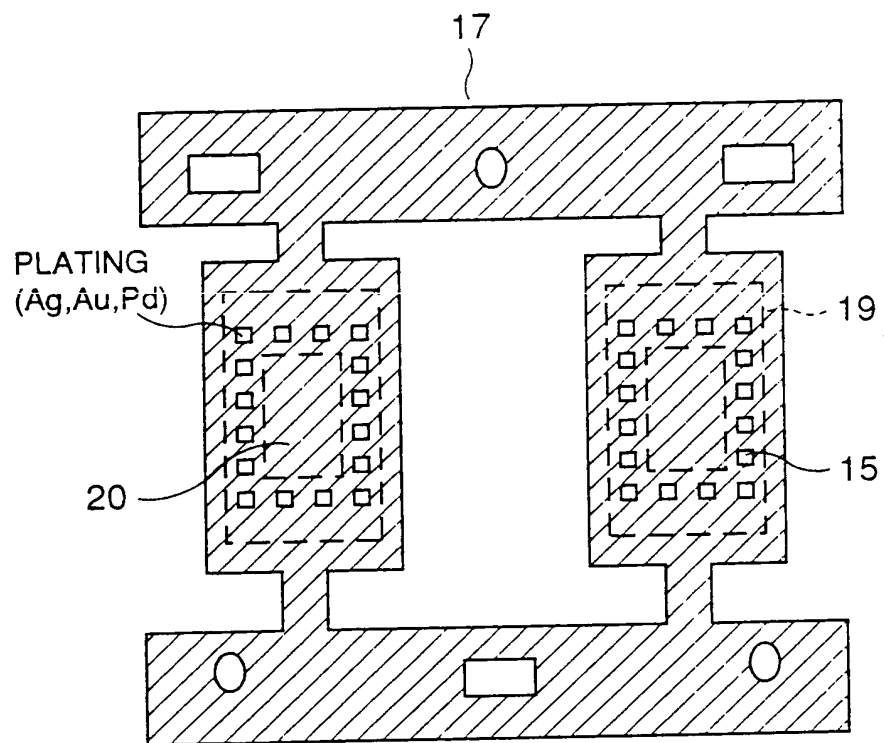


FIG.6

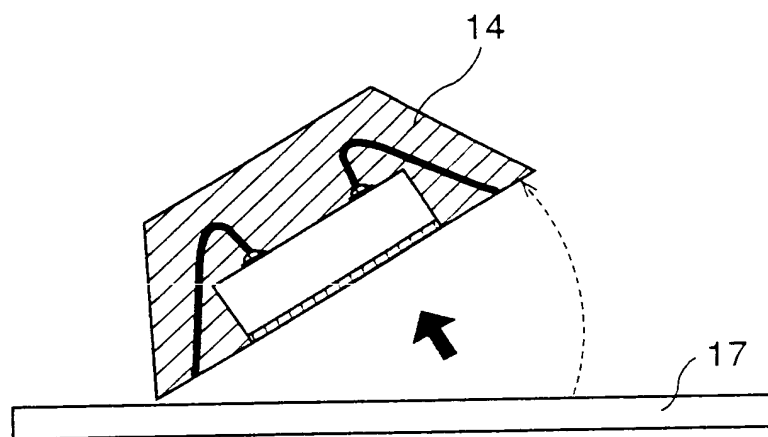


FIG.7

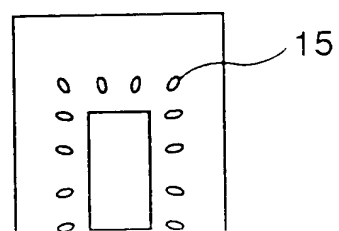


FIG.8

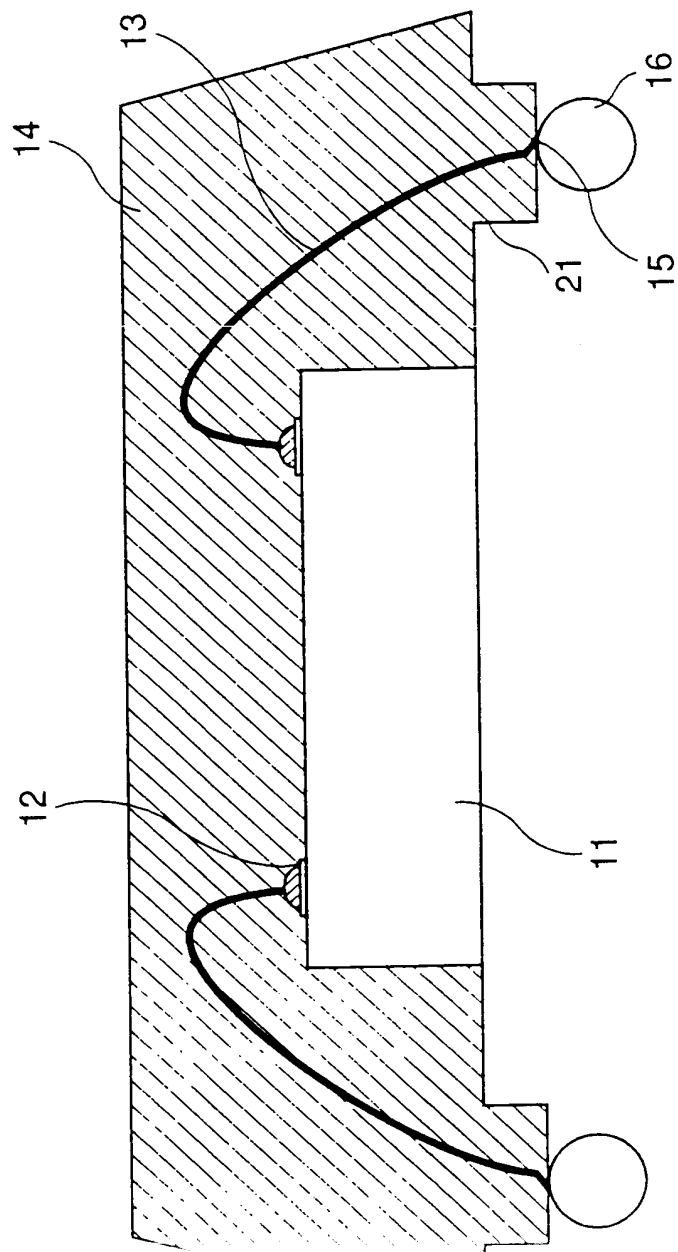


FIG.9

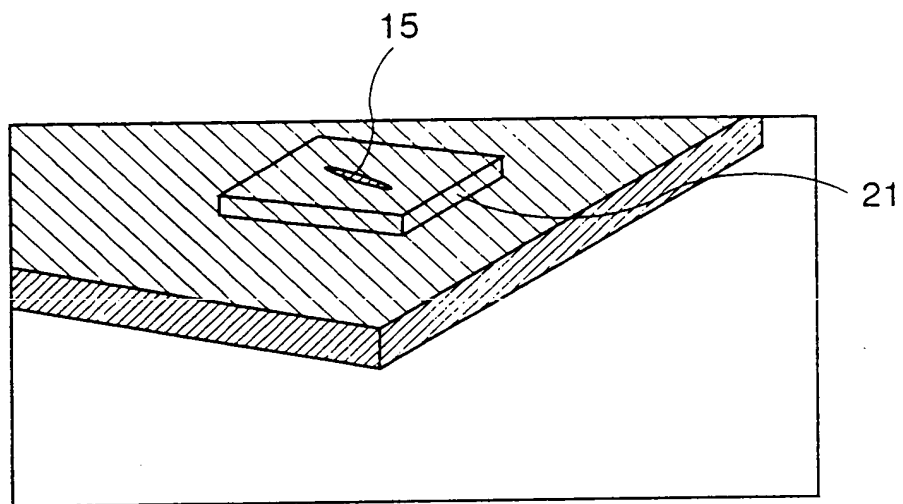


FIG.10

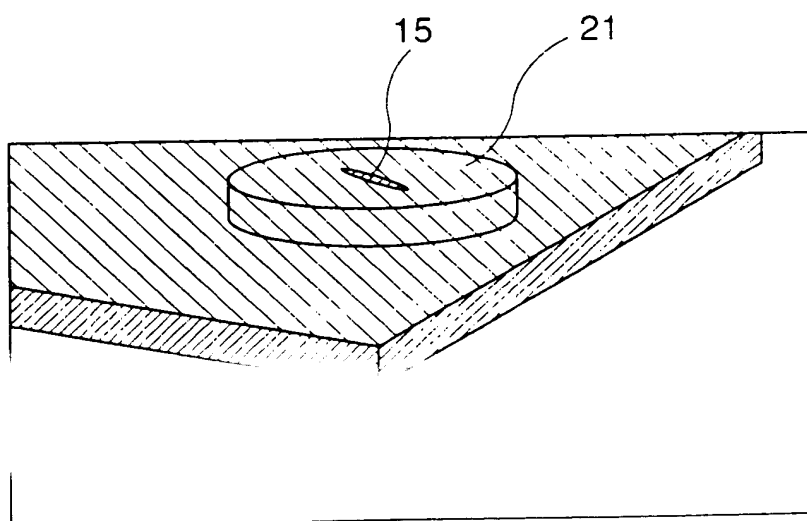




FIG.11

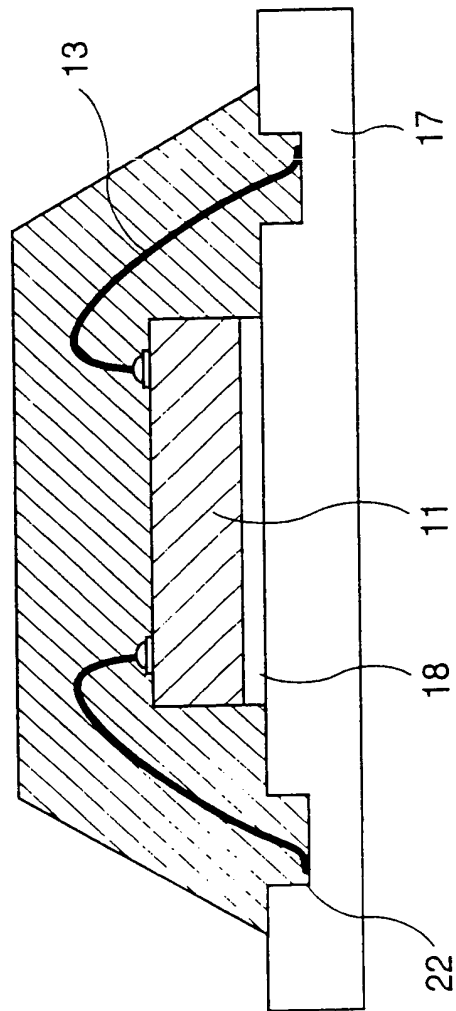


FIG.12

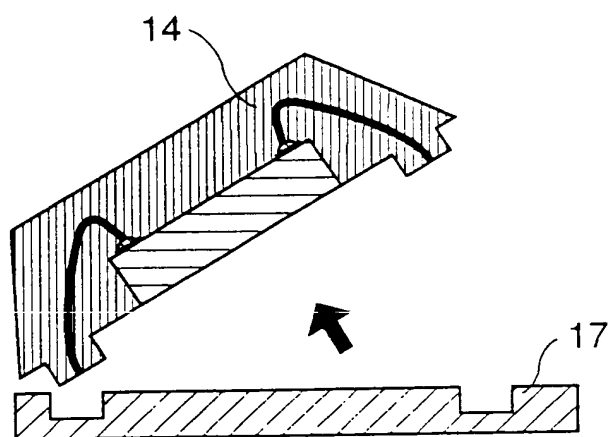


FIG.13

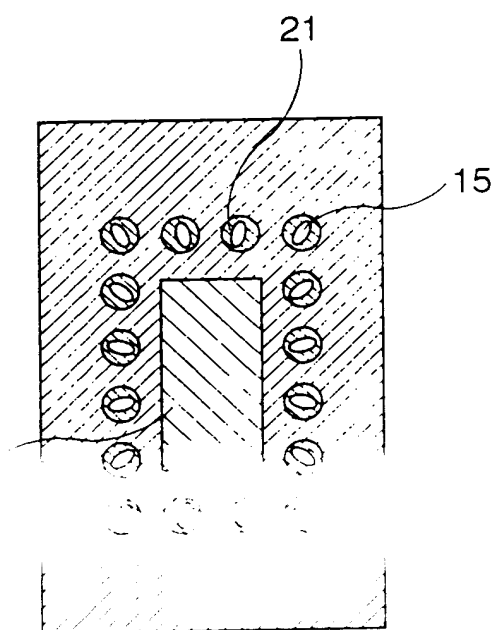


FIG.14

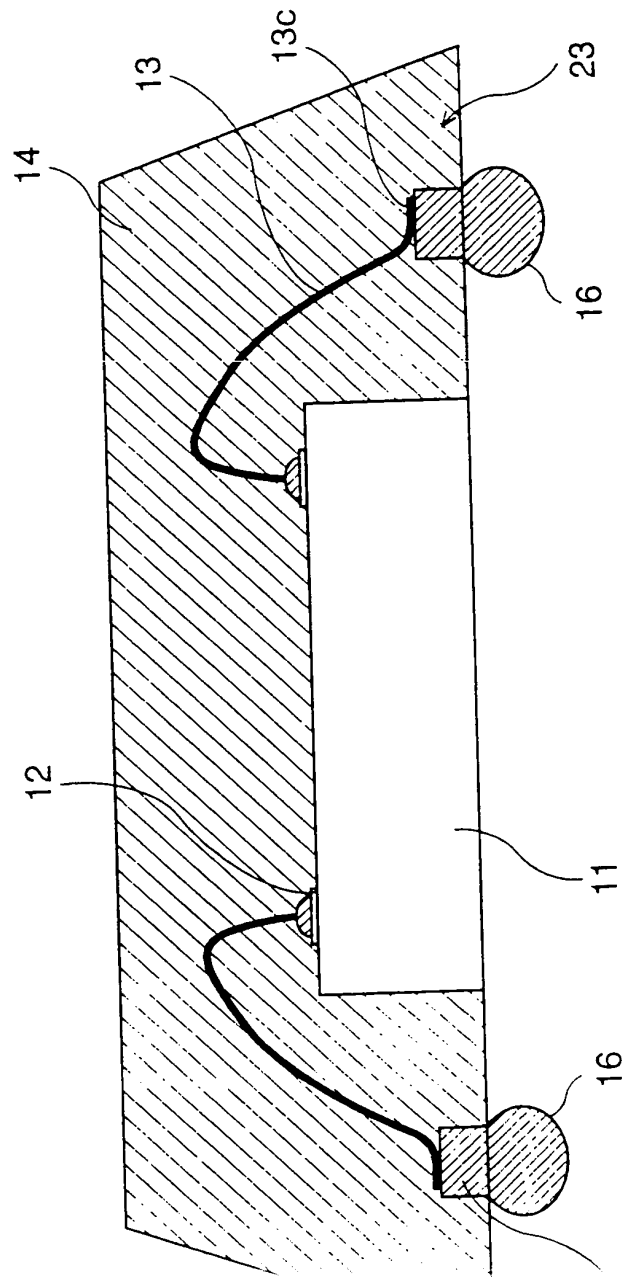


FIG.15

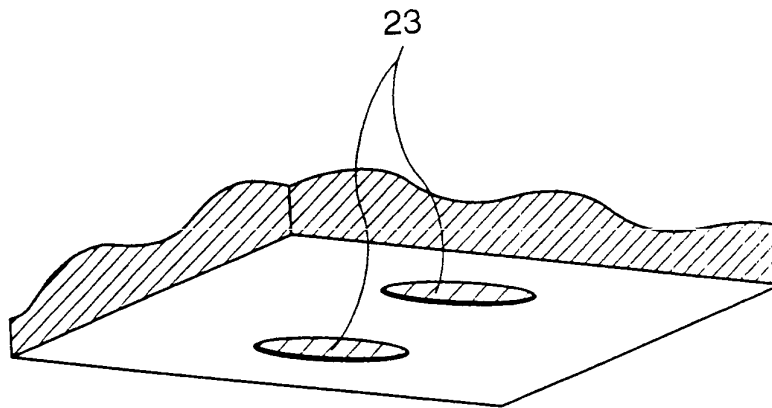


FIG.16

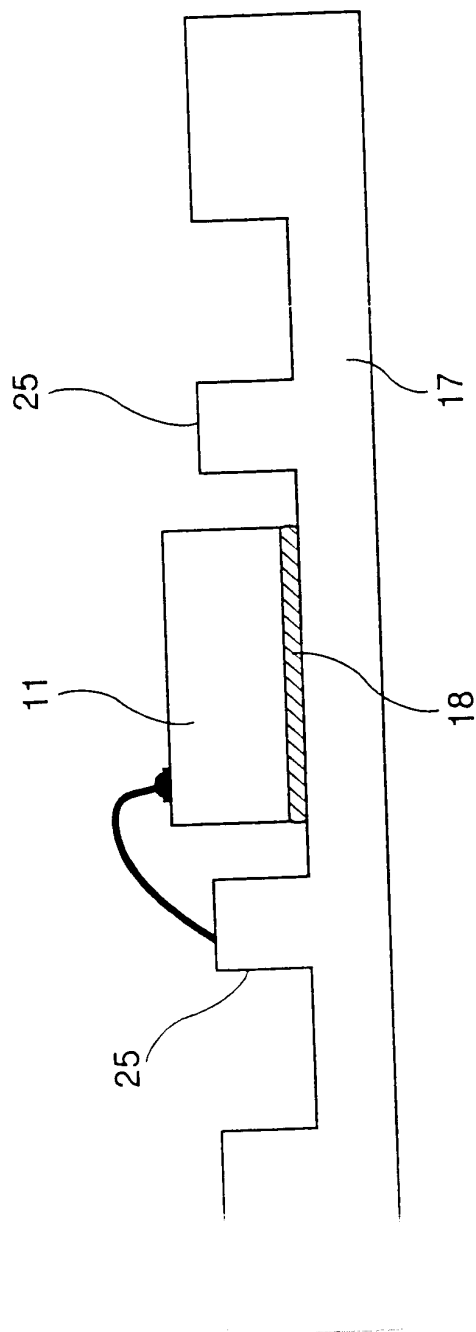


FIG.17

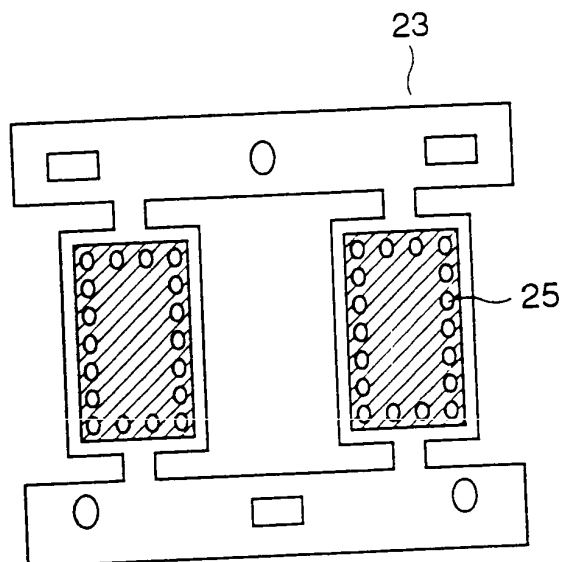


FIG.18

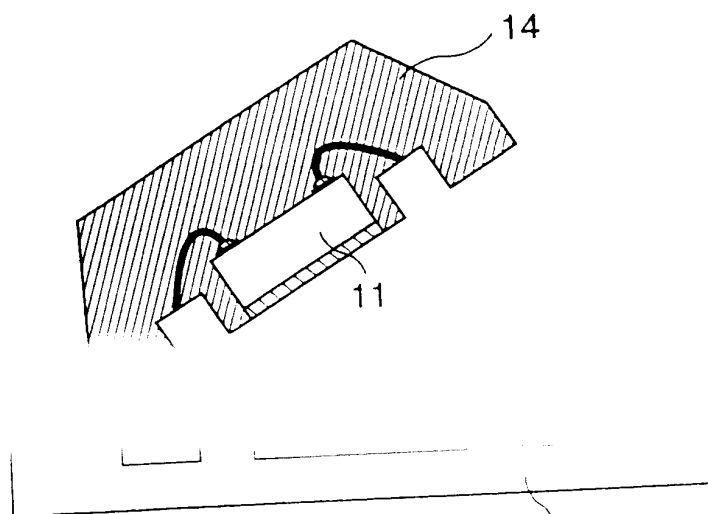


FIG.19

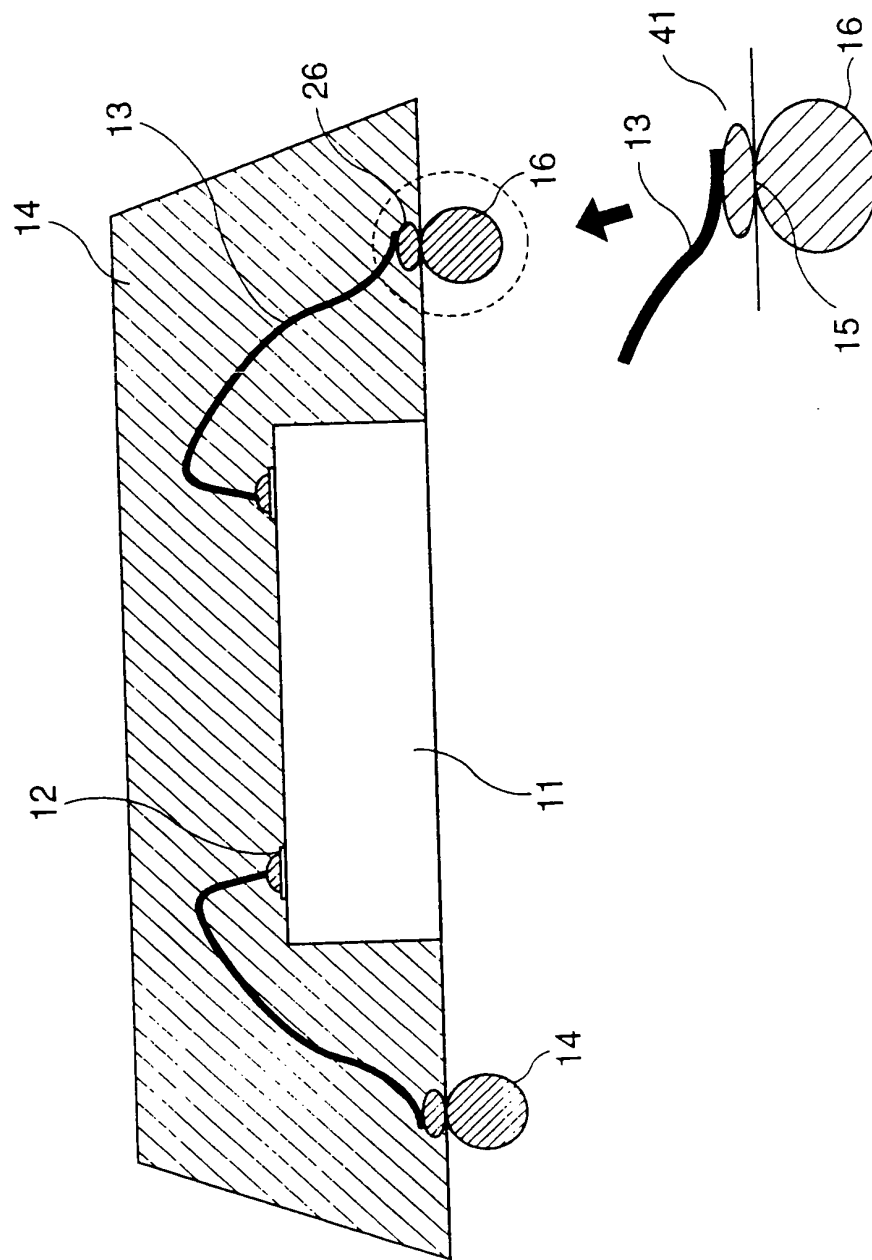


FIG.20

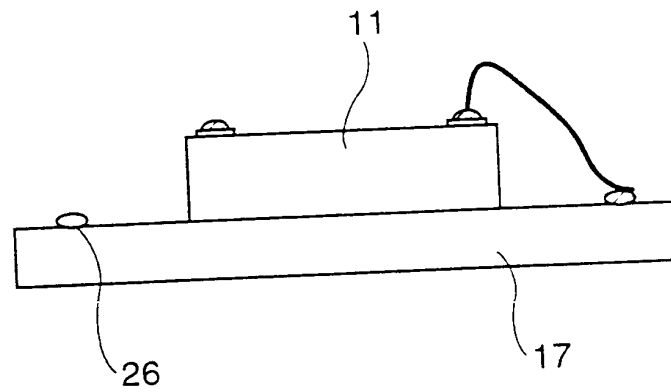


FIG.21

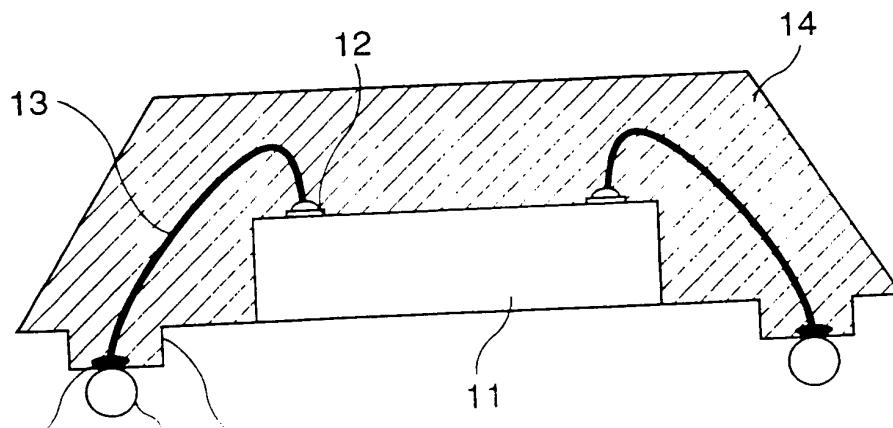




FIG.22

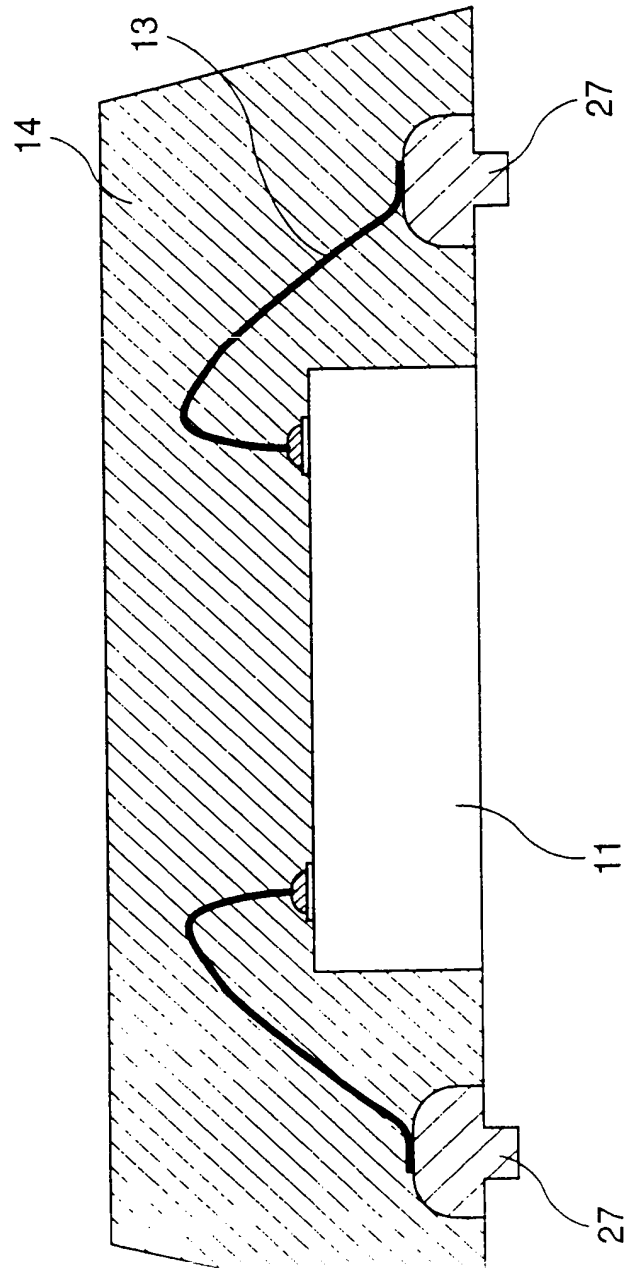


FIG.23

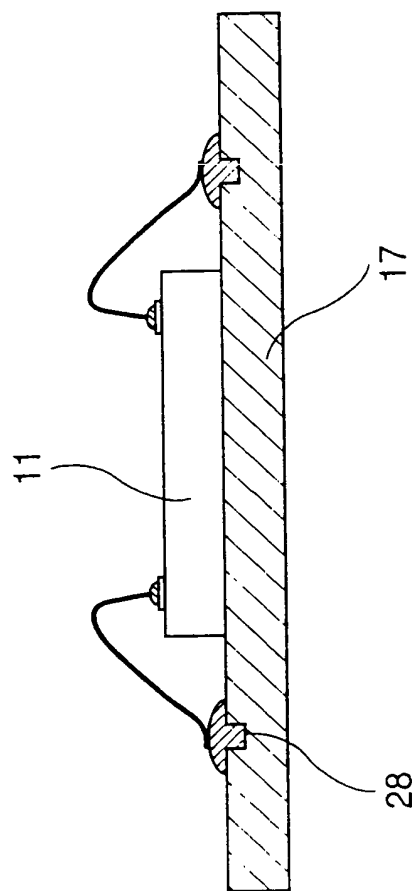


FIG.24

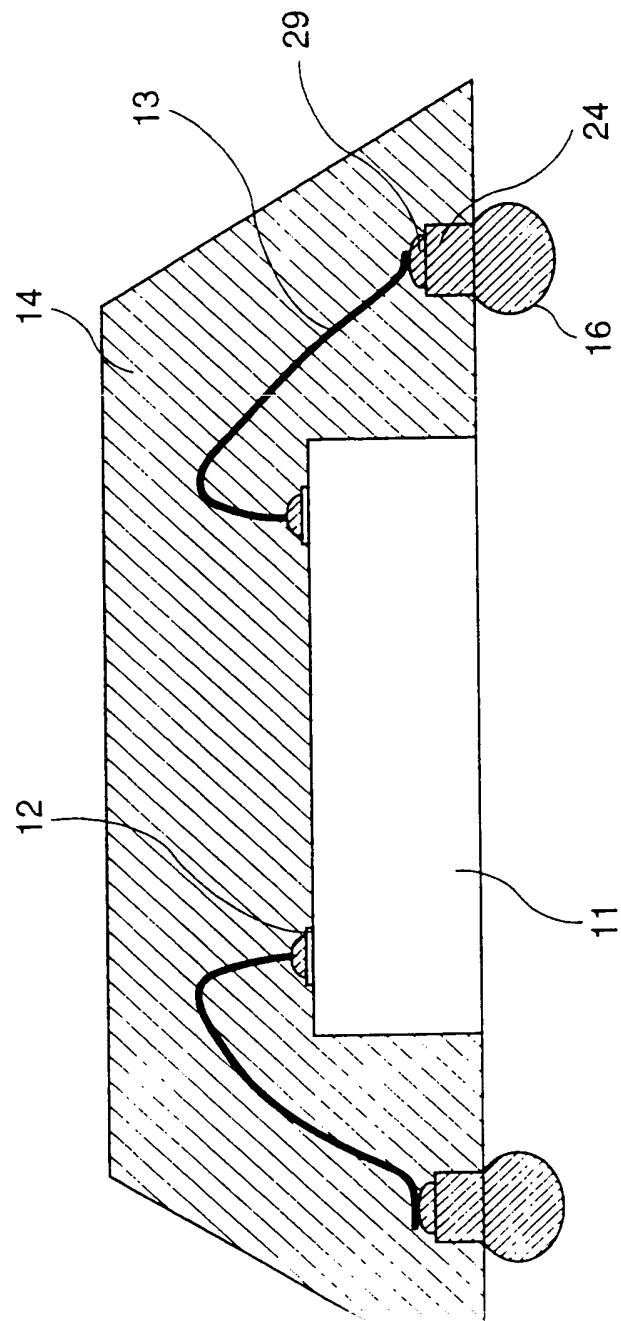


FIG.25

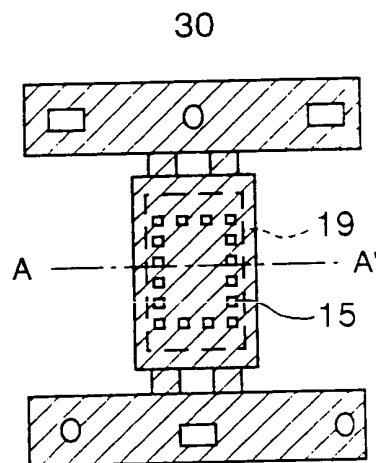


FIG.26

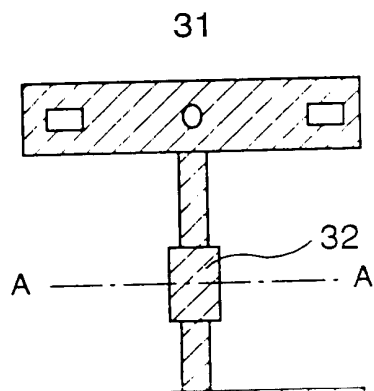


FIG.27

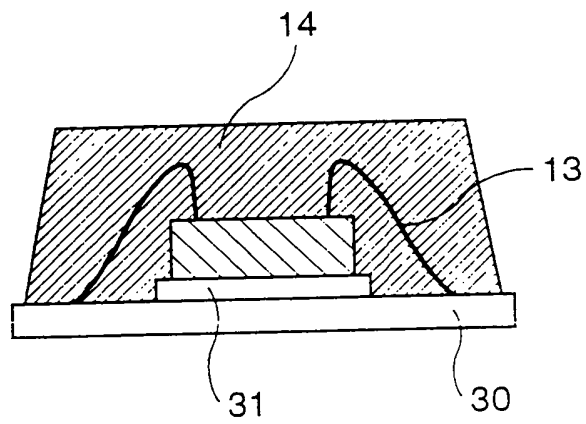


FIG.28

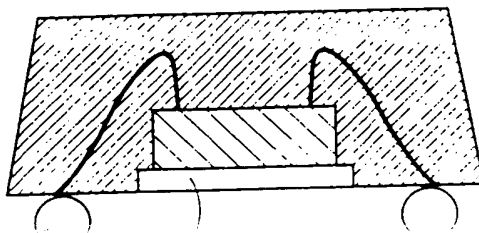


FIG.29

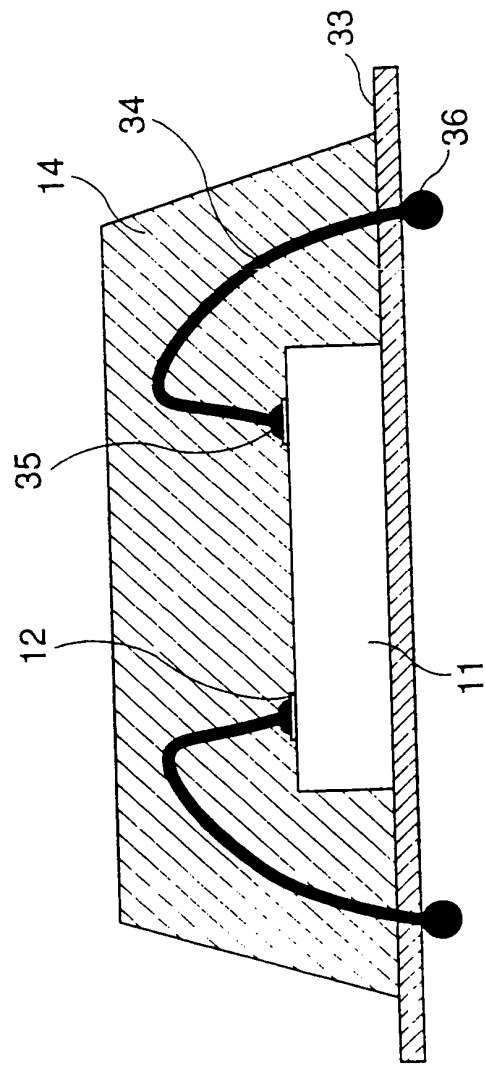


FIG.30

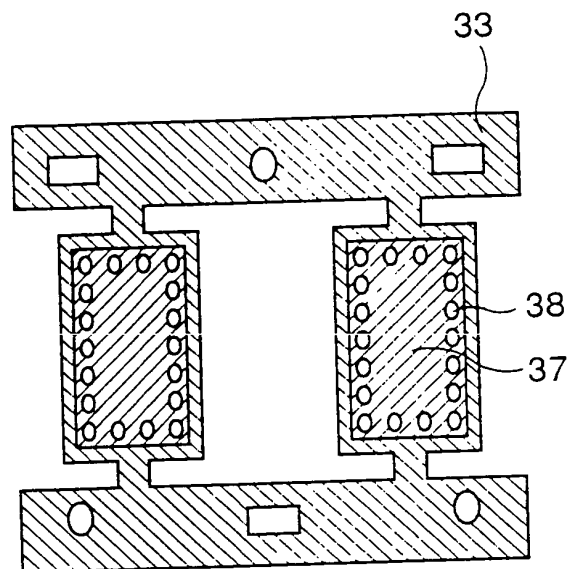


FIG.31

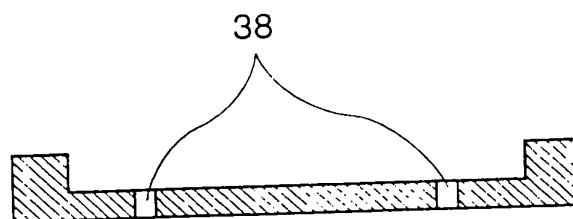


FIG. 32

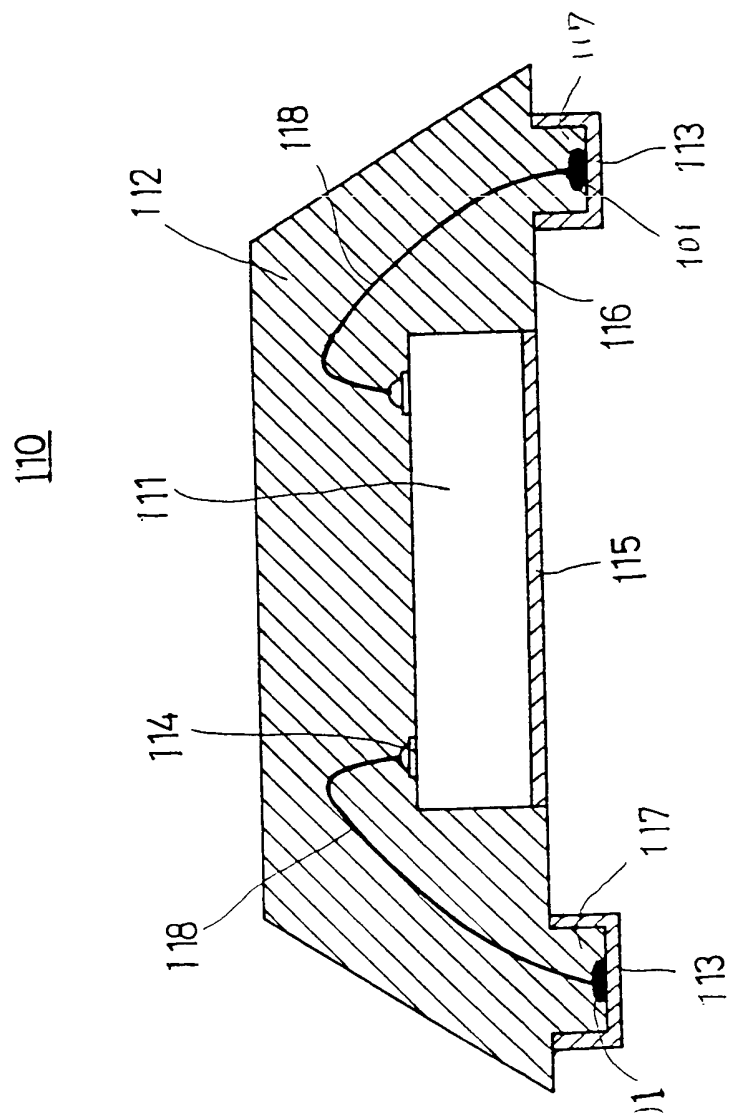




FIG. 33

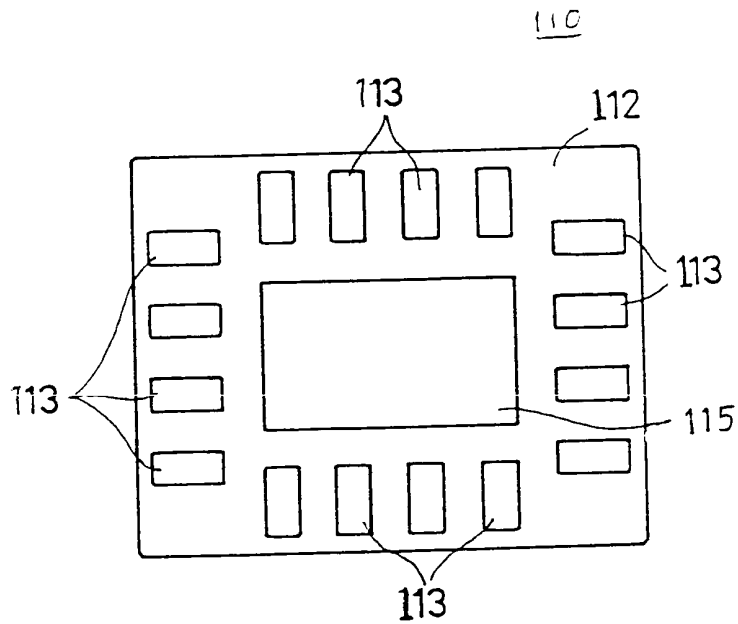


FIG. 34

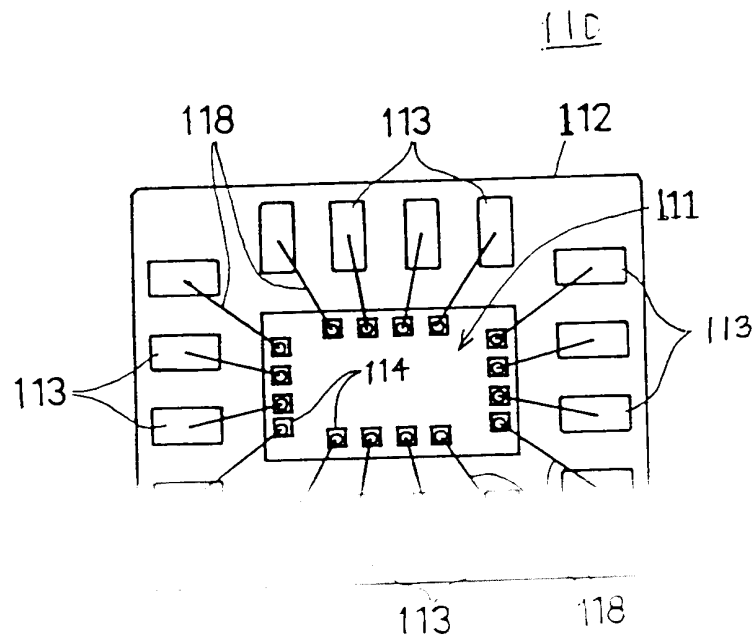


FIG. 35

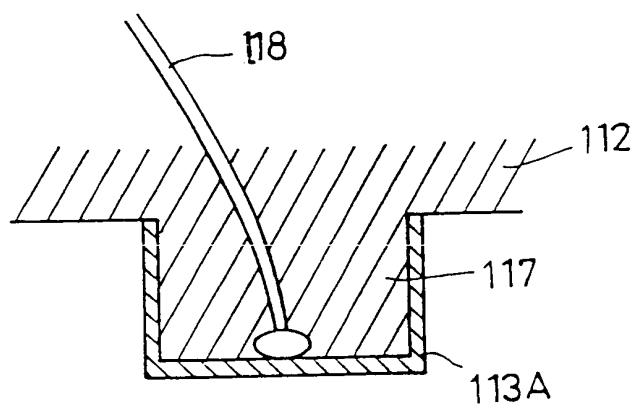


FIG. 36

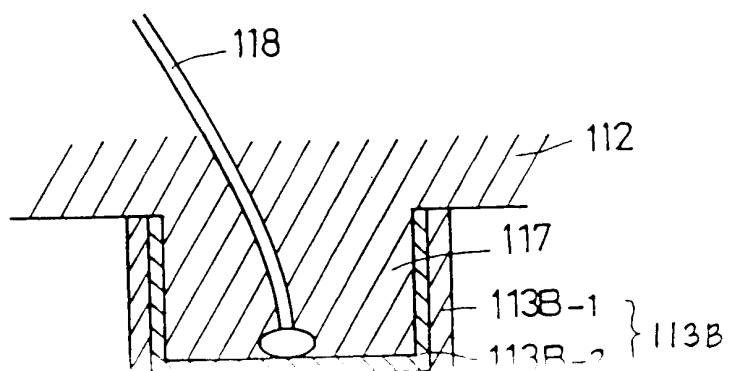


FIG. 37

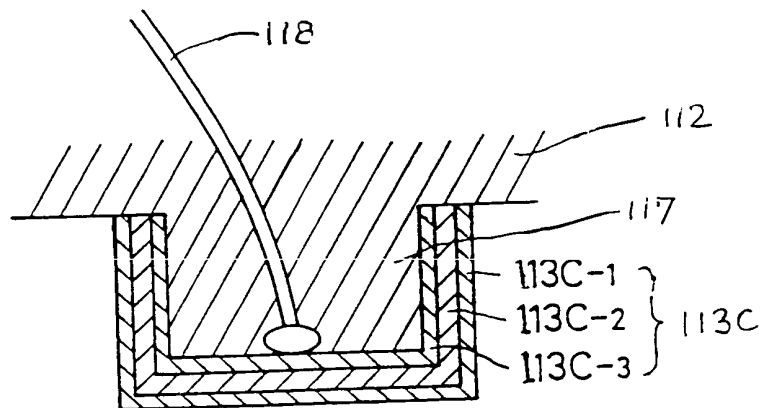


FIG. 38

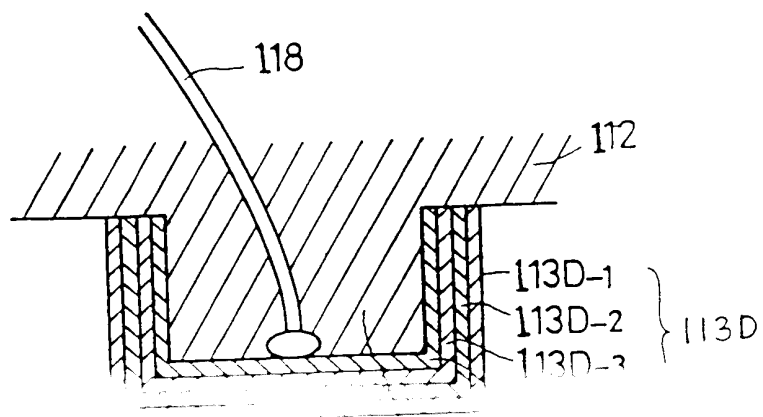


FIG. 39

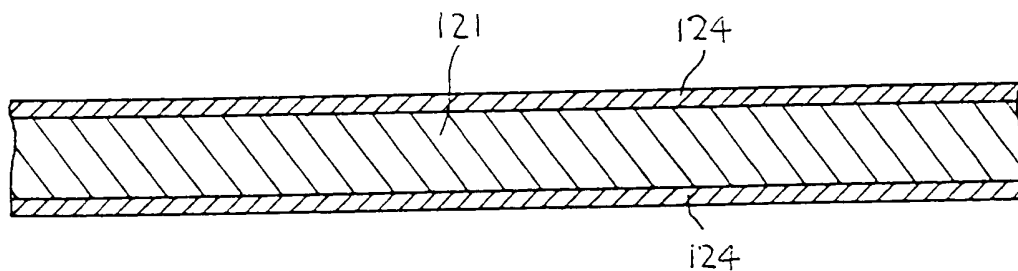


FIG. 40

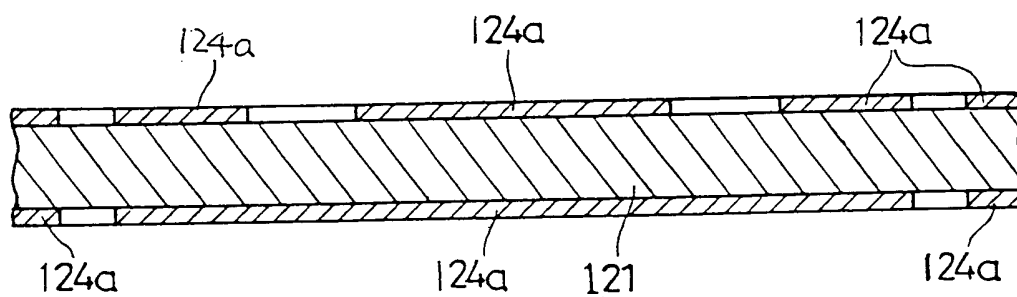


FIG. 41

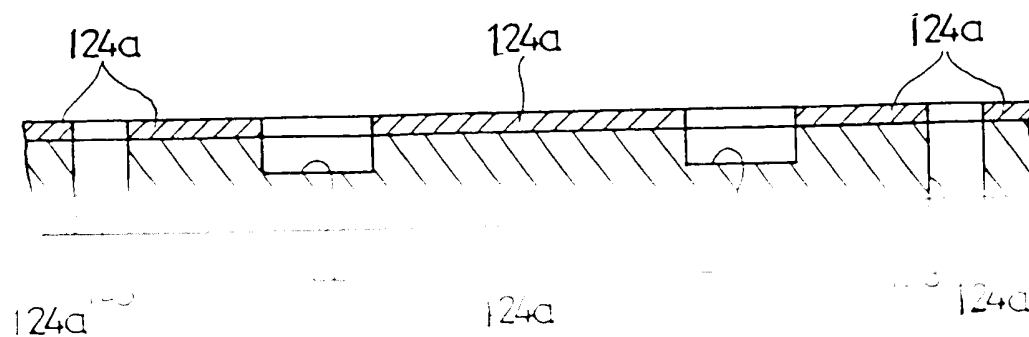


FIG. 42A

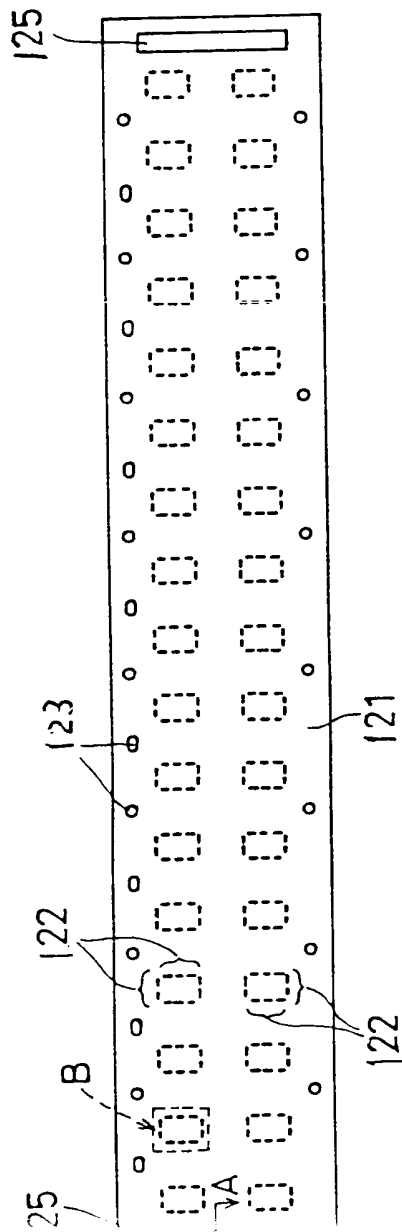


FIG. 42B

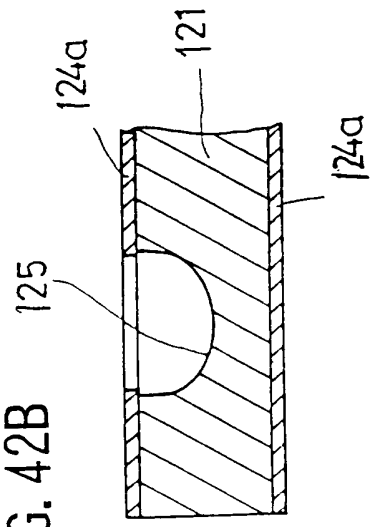


FIG. 43

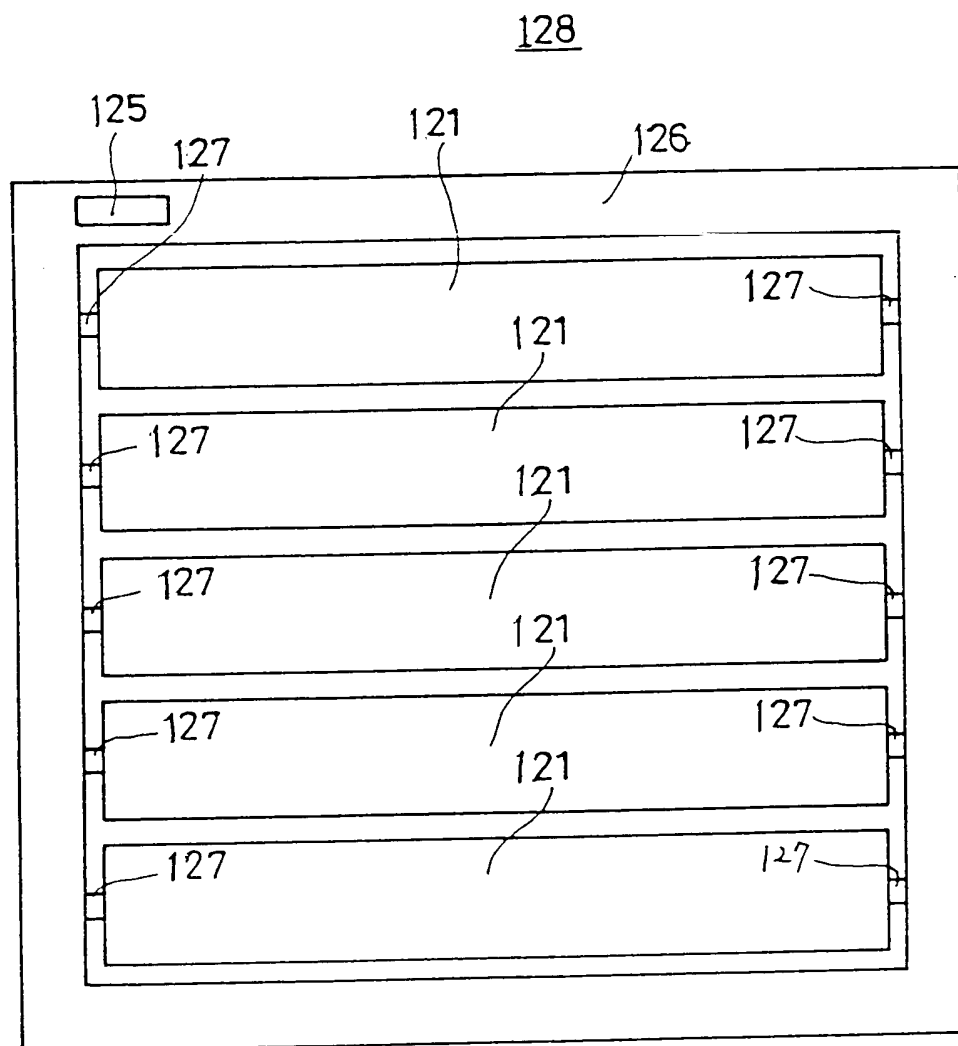


FIG. 44

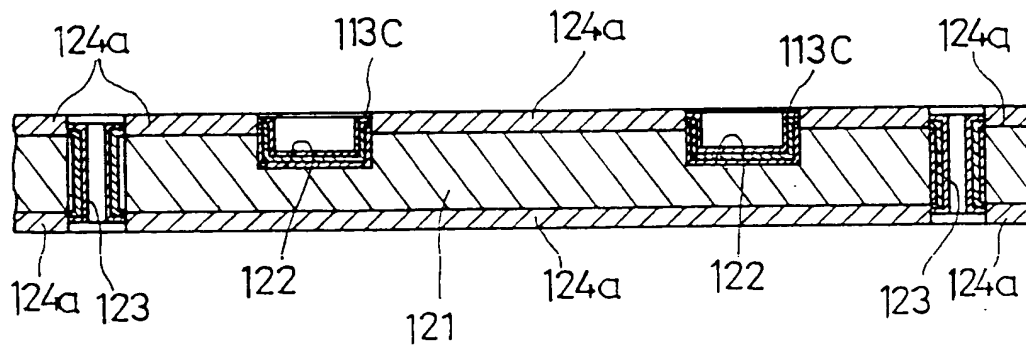
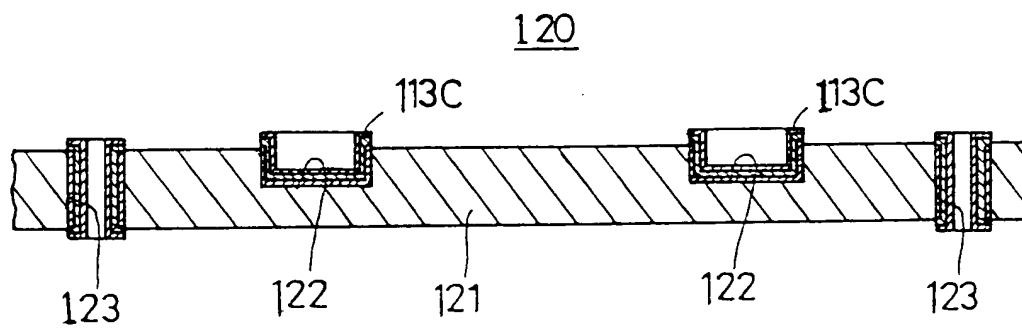
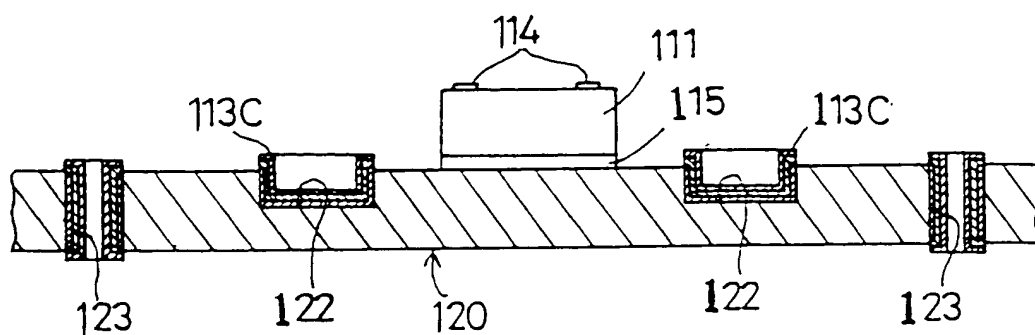


FIG. 45



A cross-sectional view of a semiconductor device. A central block 111 is mounted on a substrate 120. The block 111 has a top surface 114 and a bottom surface 115. On the left and right sides of the block 111, there are structures 113C. Each structure 113C consists of a central region 122 and side regions 123. The side regions 123 are shown with a hatched pattern, indicating a different material or layer.



123 113C 118 114 111 118 122 123 122 120 115 113C-3 113C-2 113C-1 113C

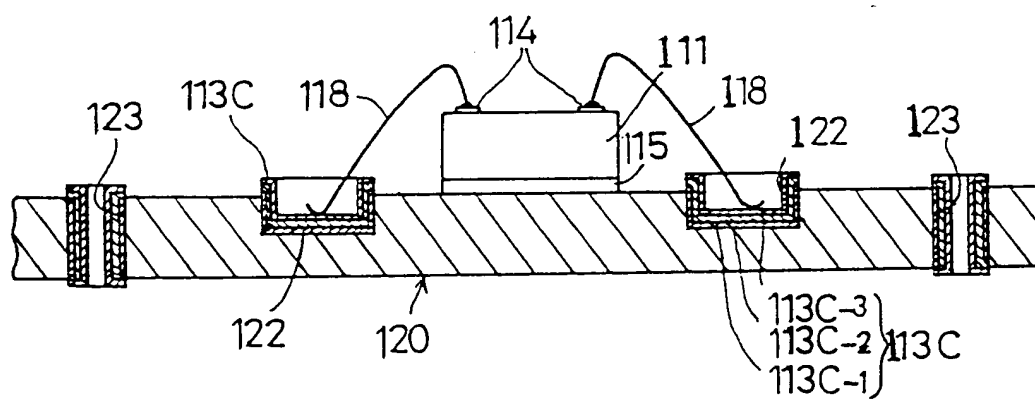




FIG. 48

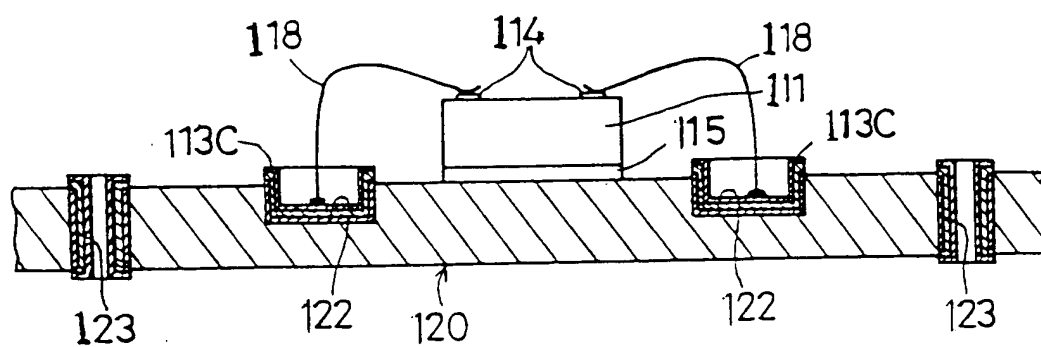


FIG. 49

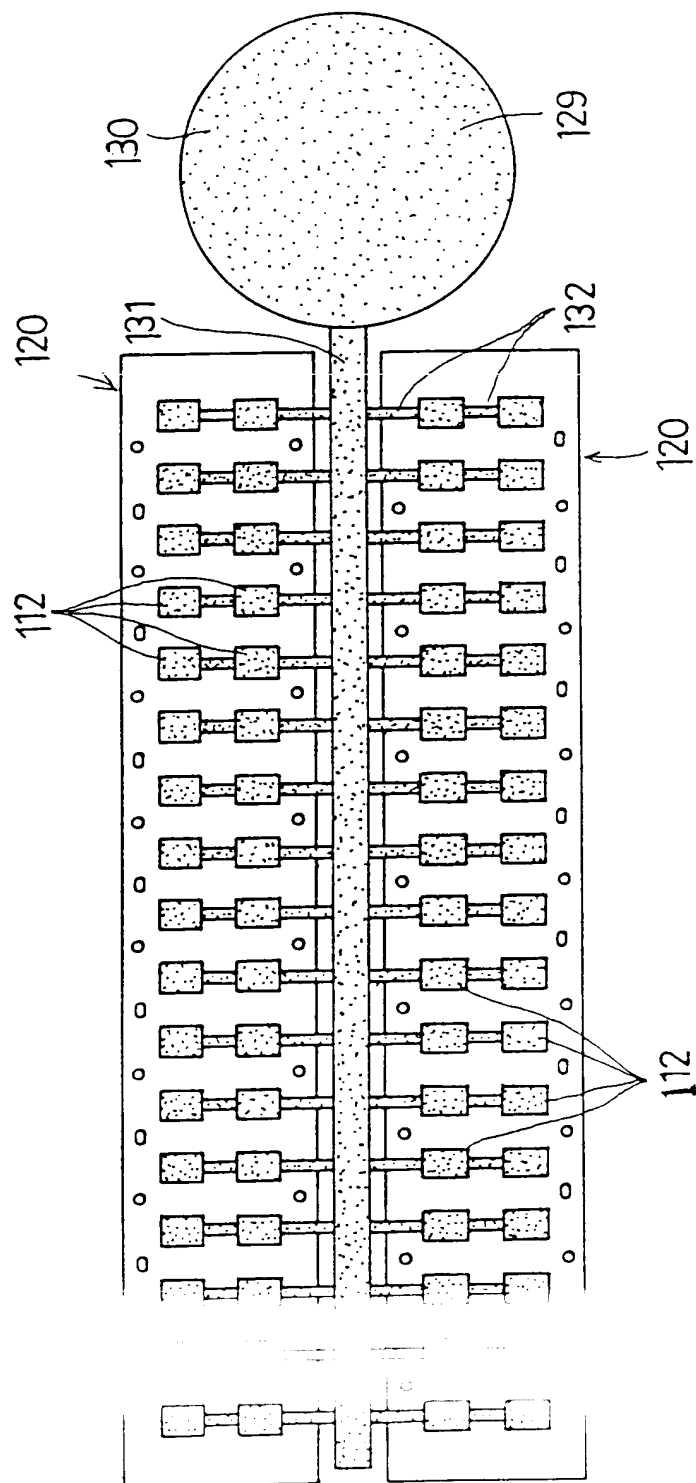


FIG. 50

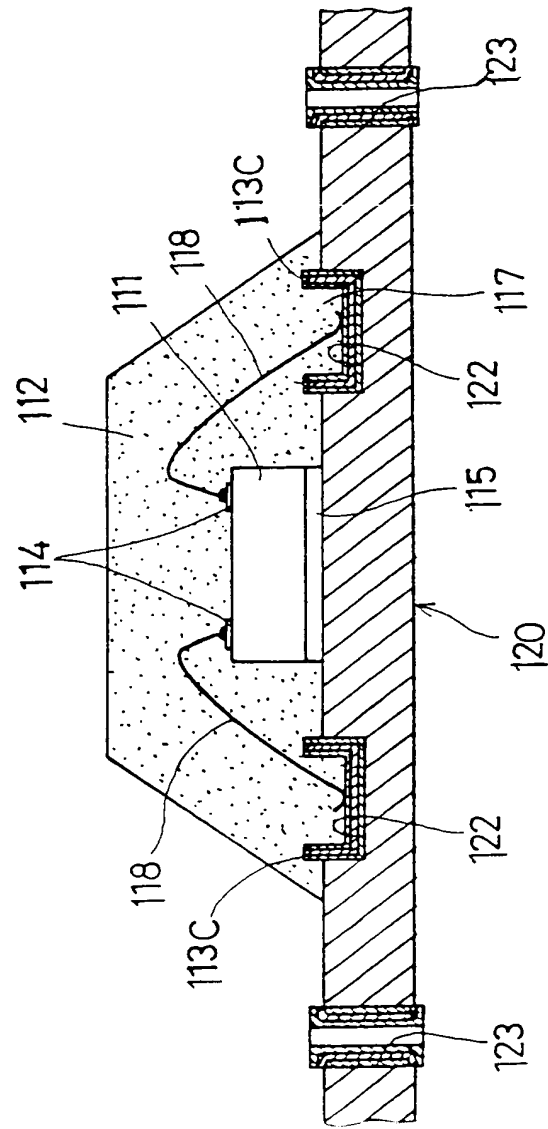


FIG. 51A

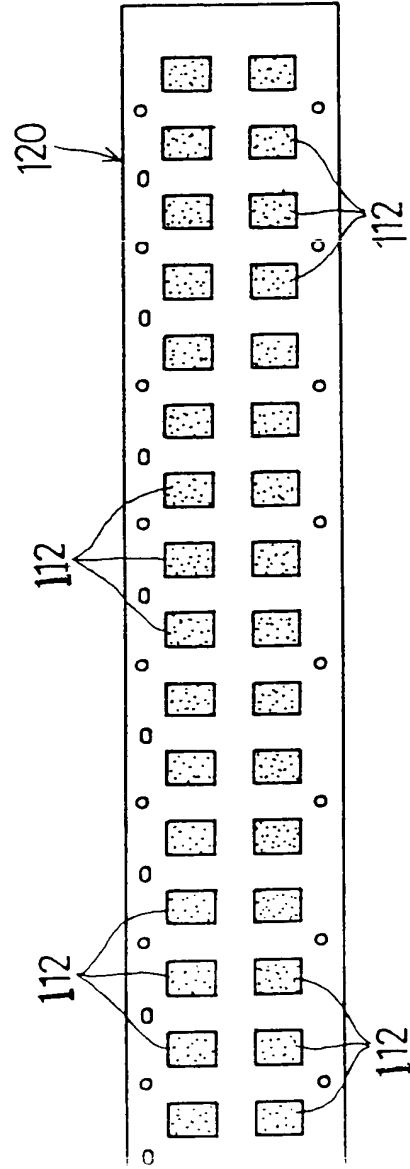


FIG. 51B

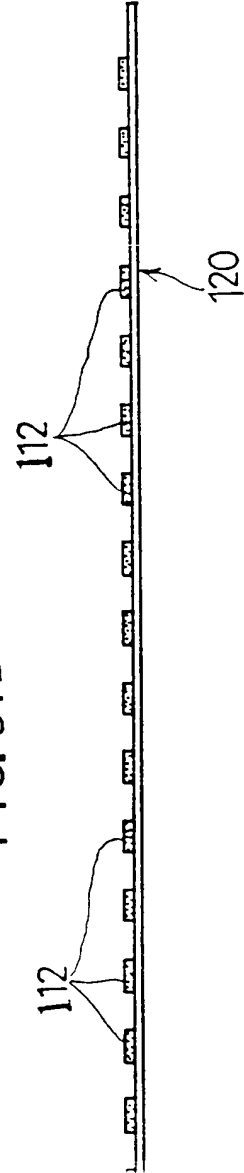


FIG. 52A

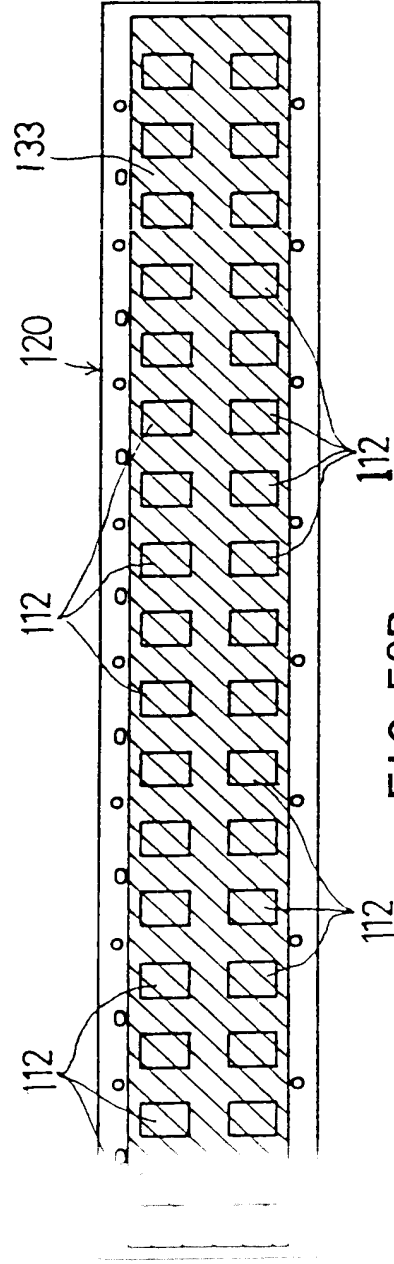


FIG. 52B

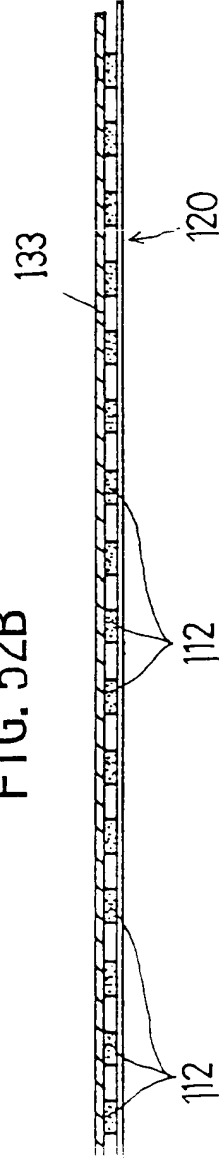


FIG. 53

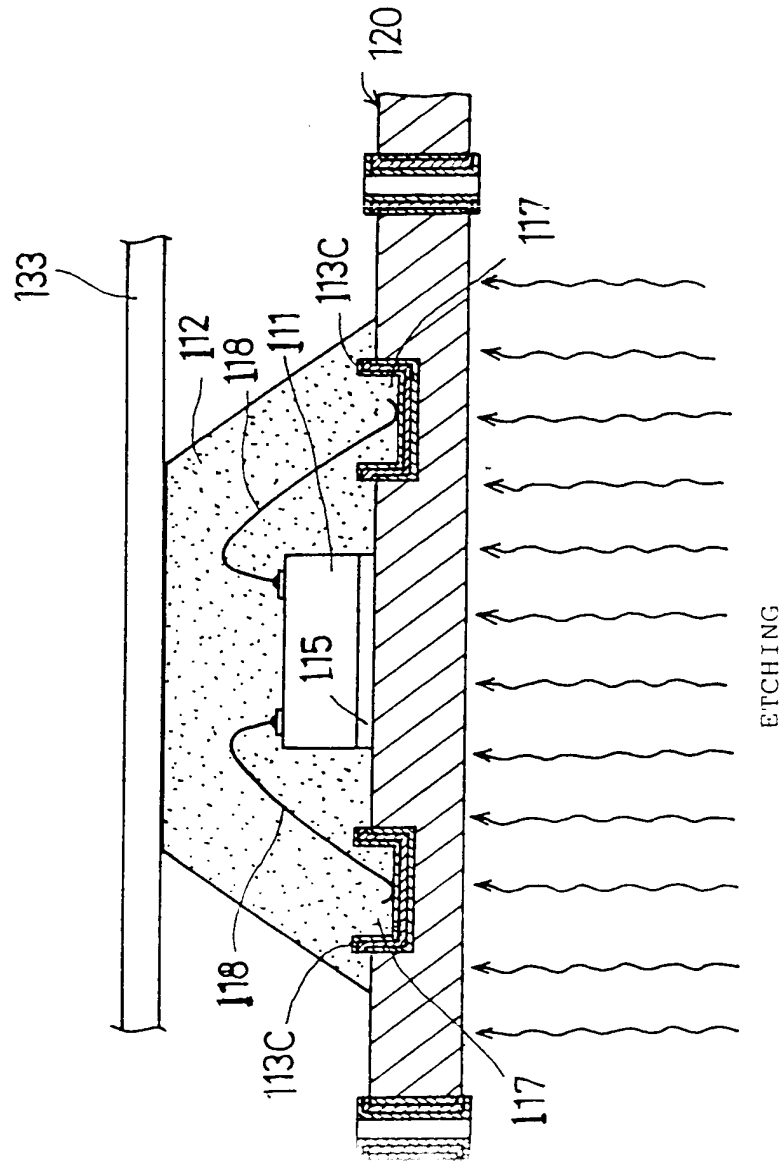


FIG. 54A

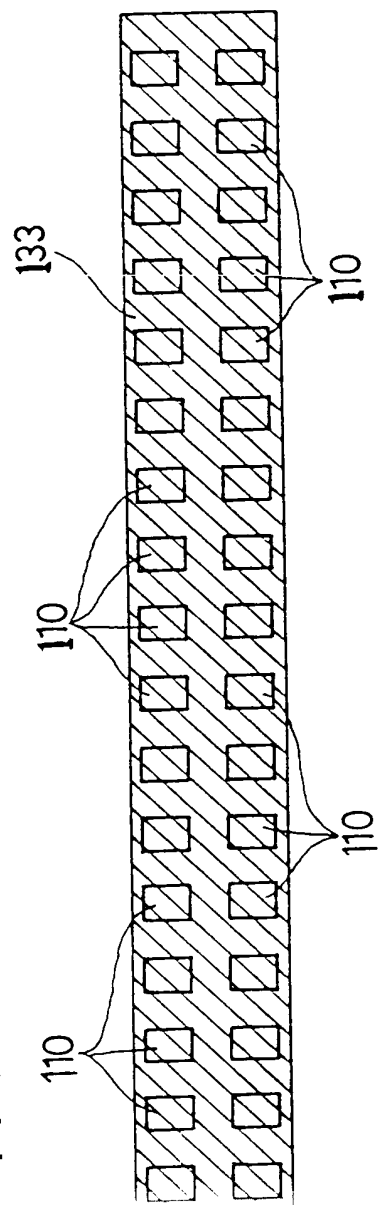


FIG. 54B

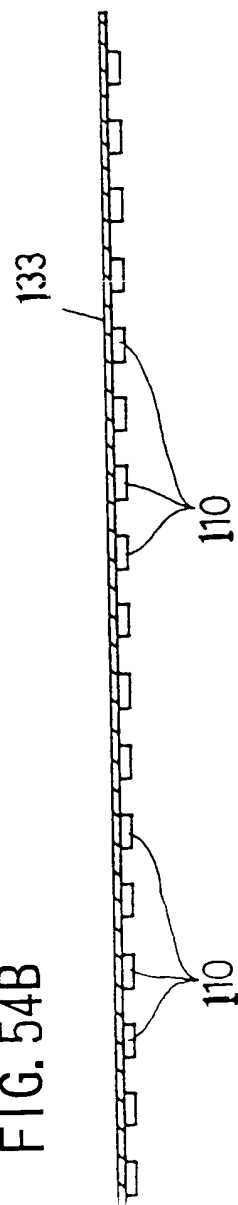


FIG. 55A

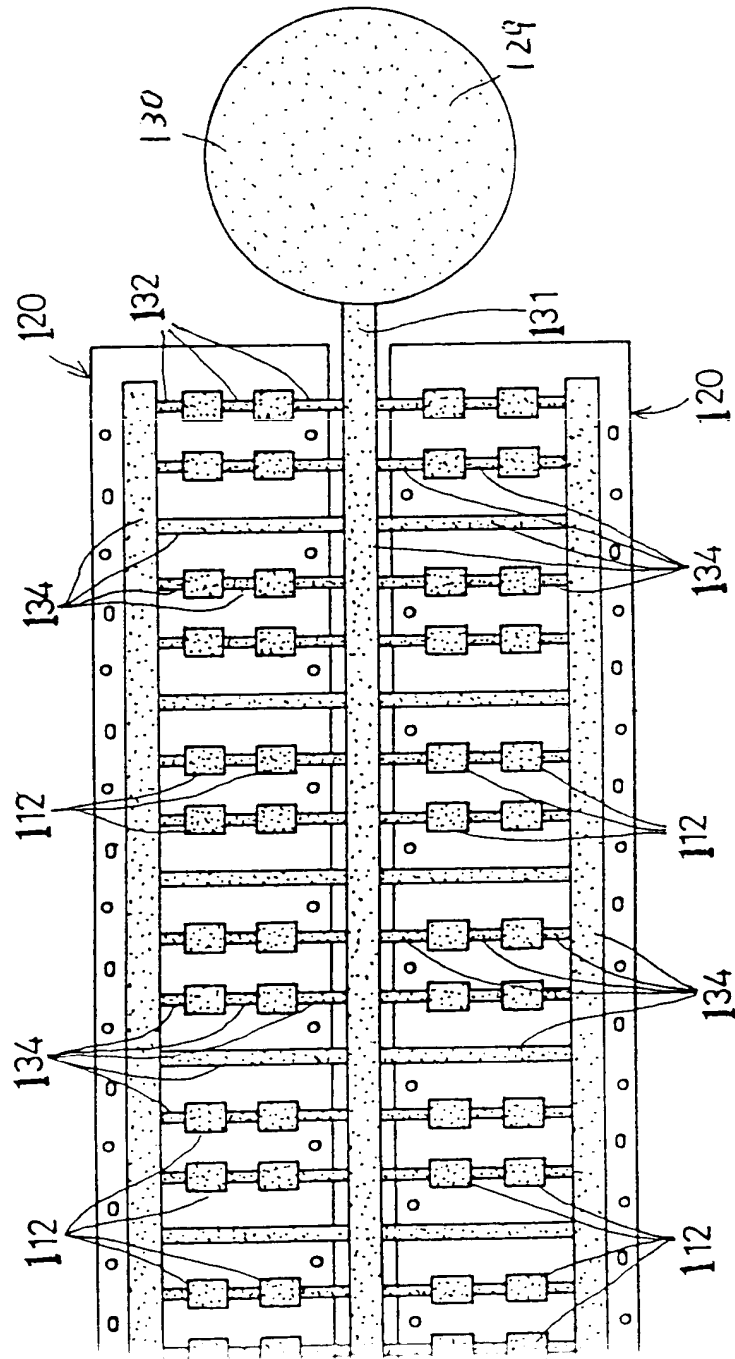




FIG. 55B

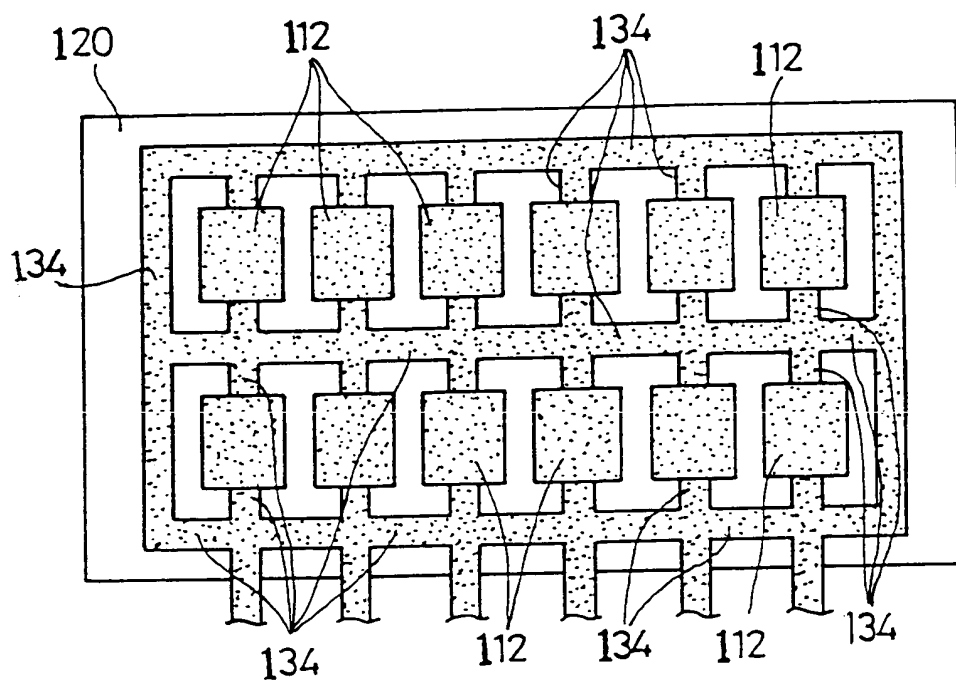


FIG. 55C

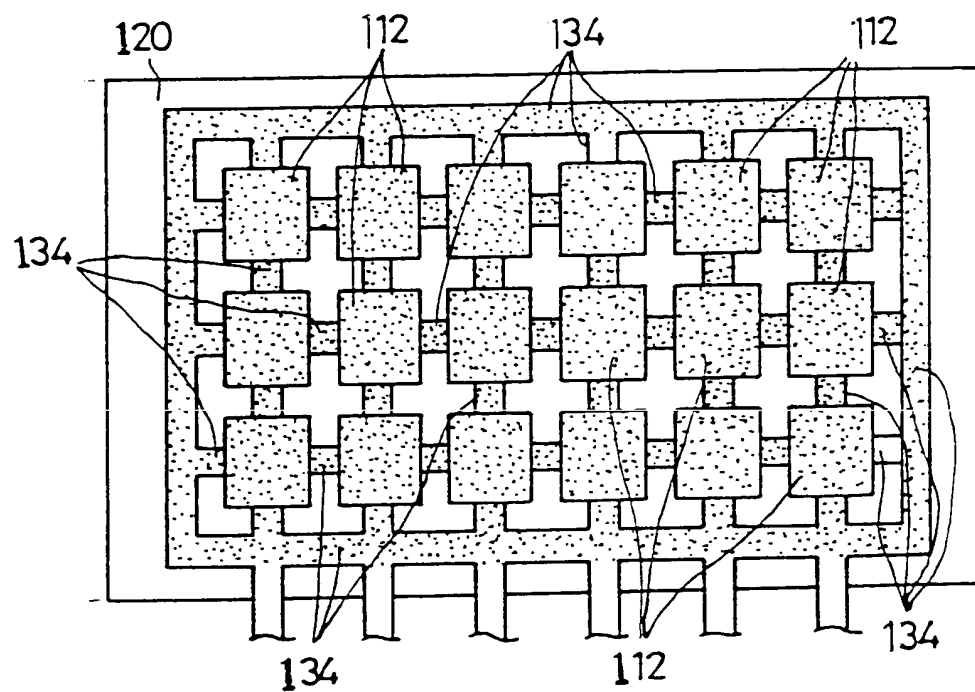


FIG. 56

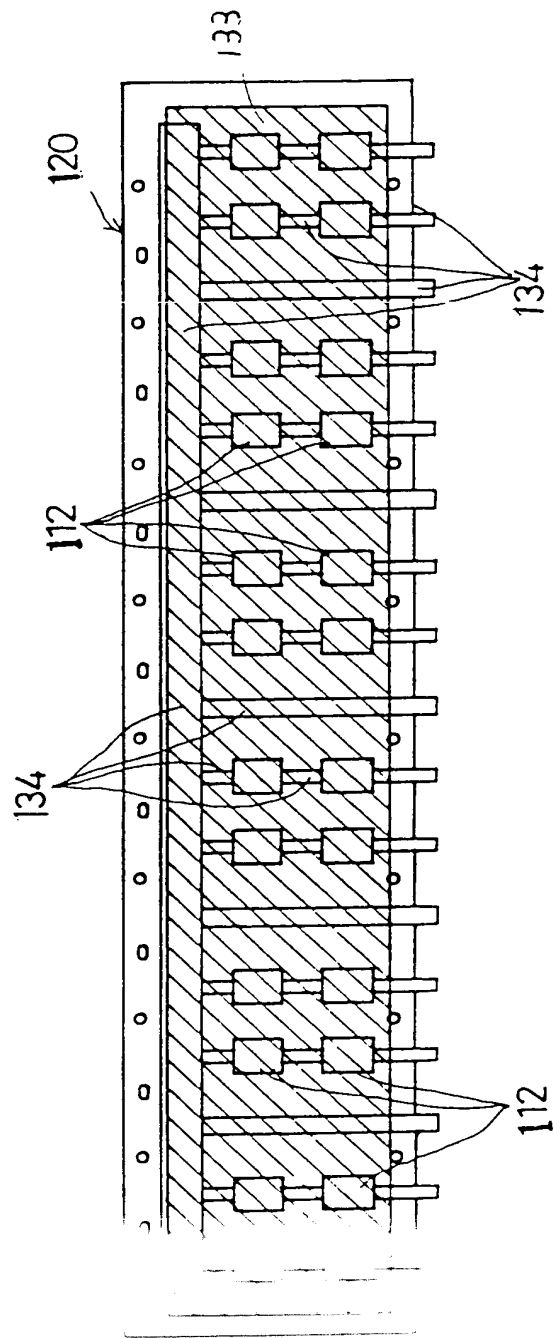


FIG. 57A

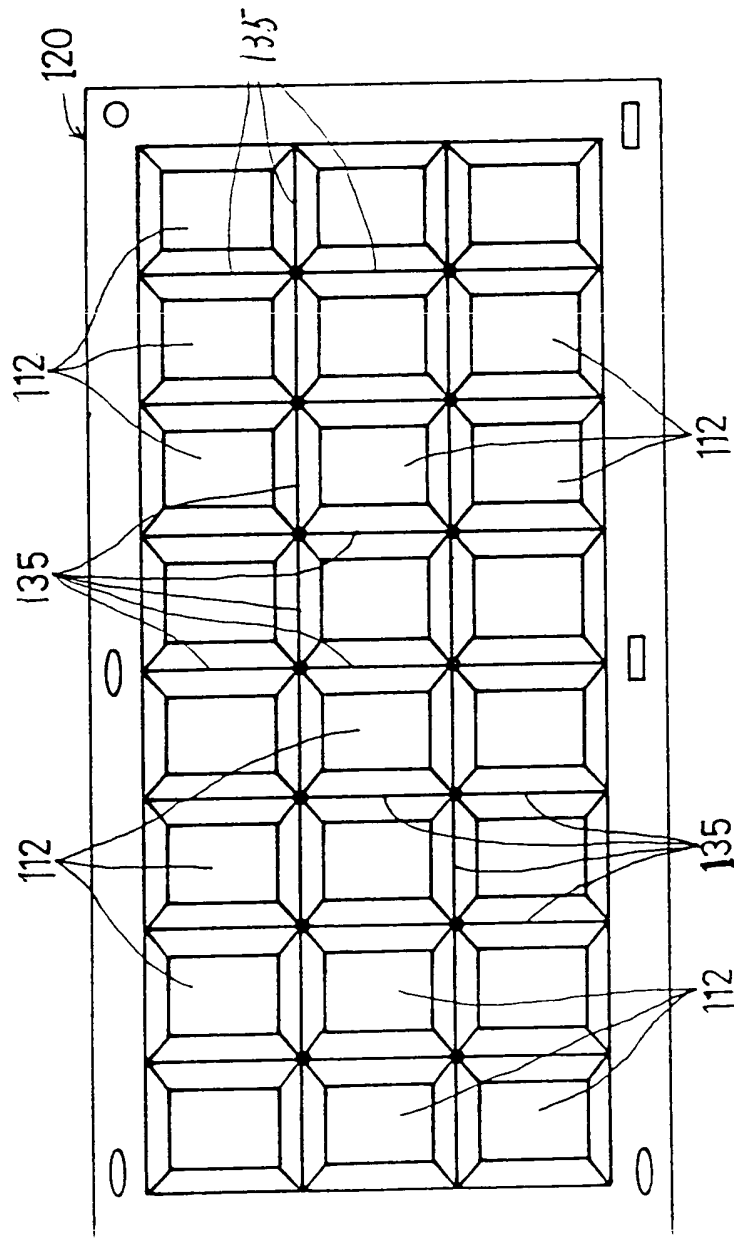


FIG. 57B

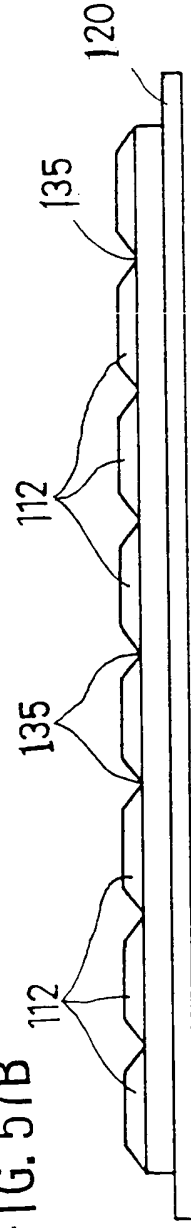


FIG. 58

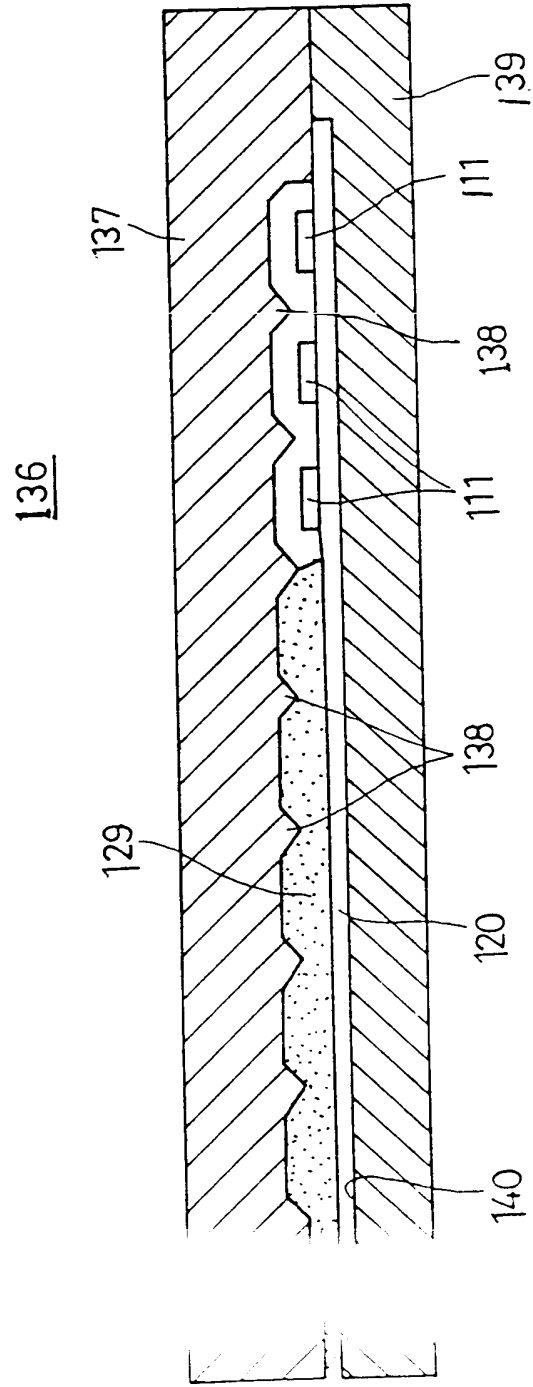


FIG. 59

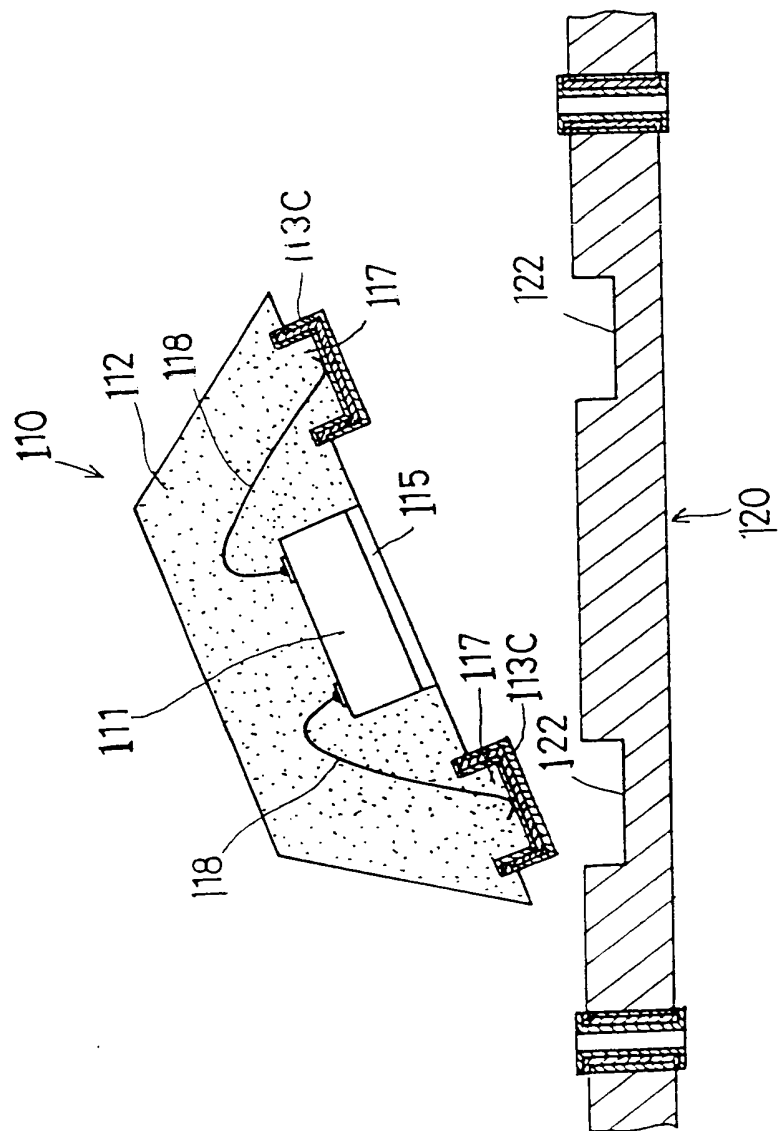


FIG. 60

150

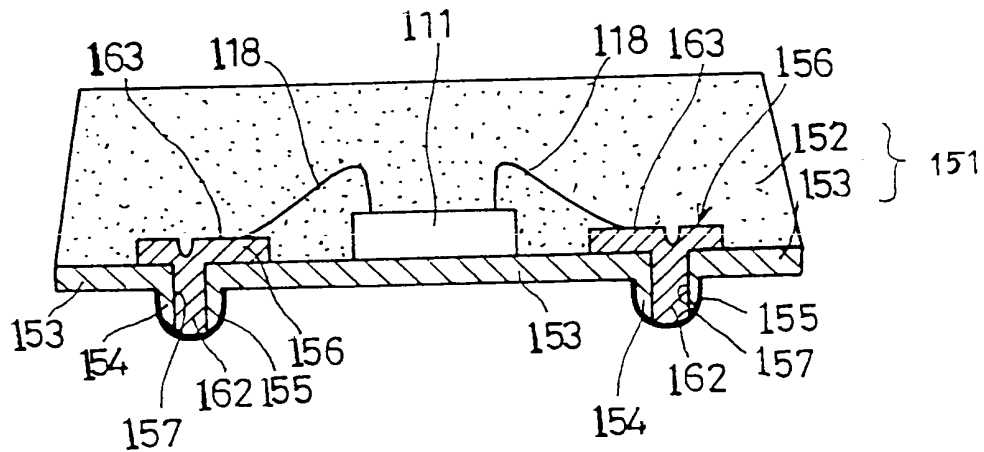


FIG. 61

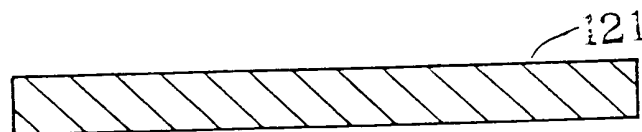


FIG. 62

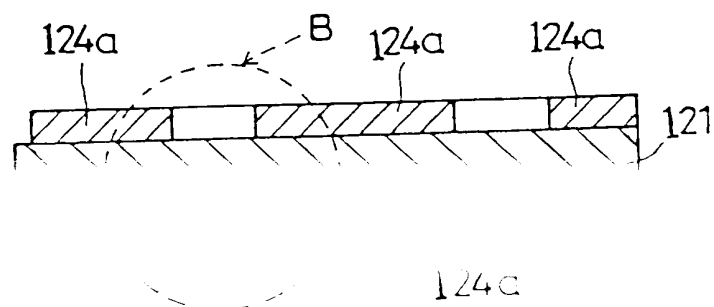


FIG. 63

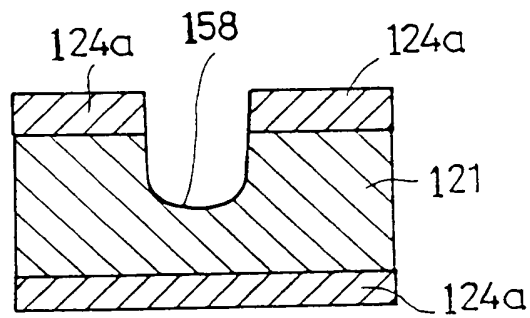


FIG. 64

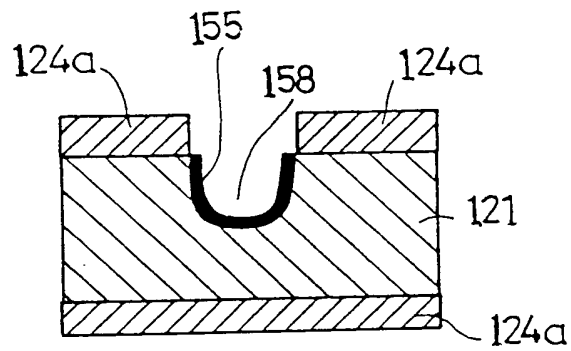


FIG. 65

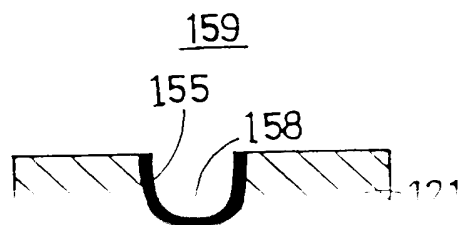




FIG. 66

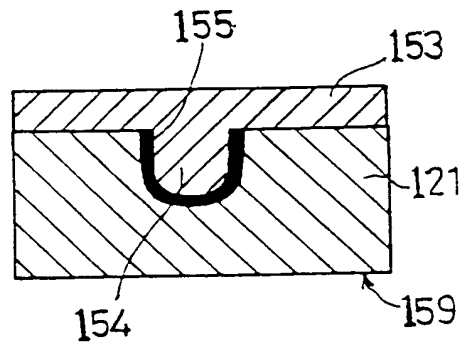


FIG. 67

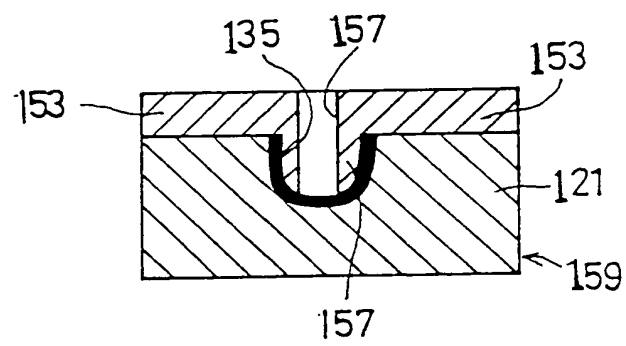


FIG. 68

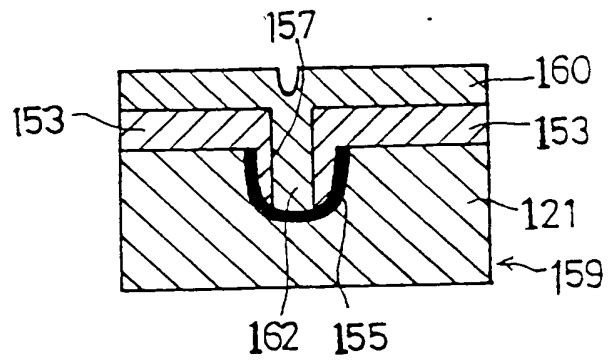


FIG. 69

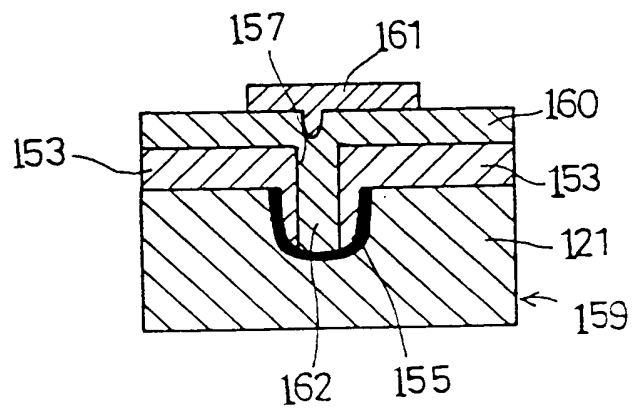


FIG. 70

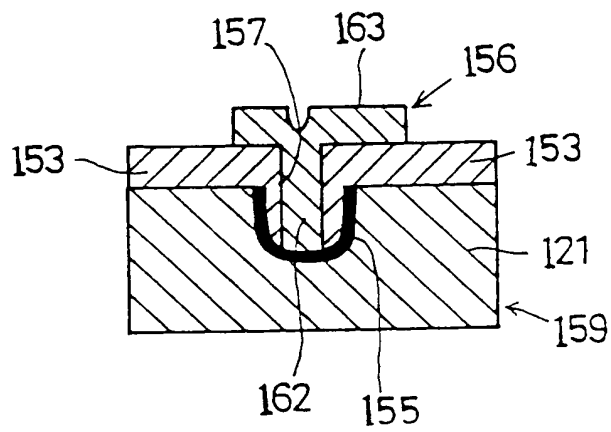


FIG. 71

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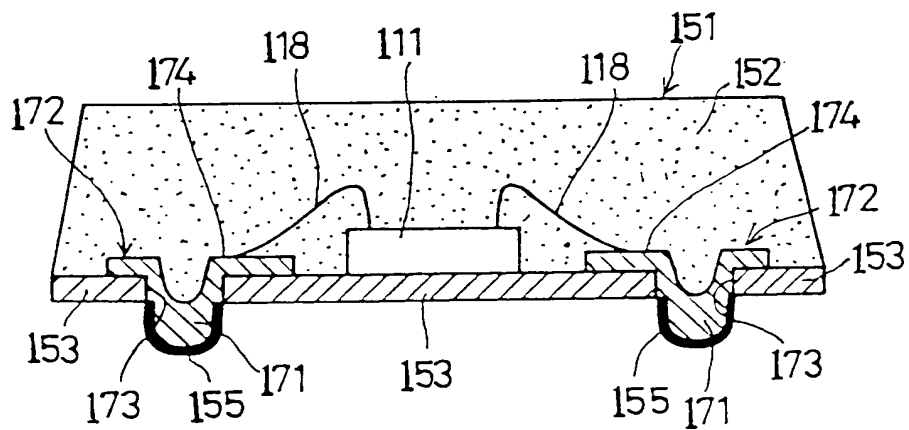


FIG. 72

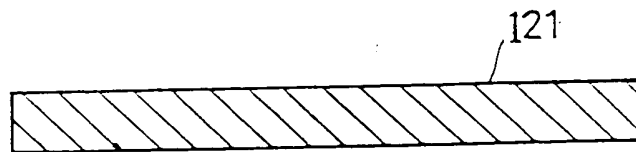


FIG. 73

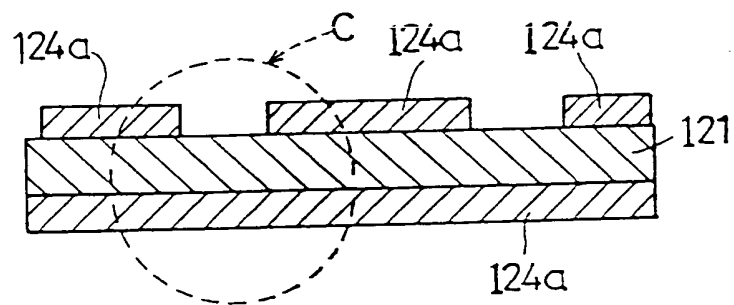


FIG. 74

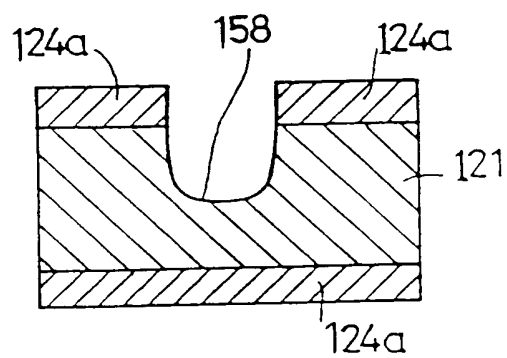


FIG. 75

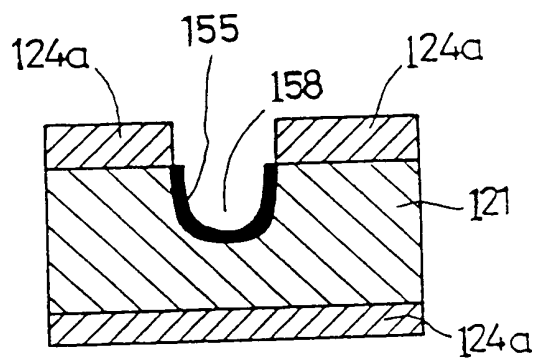


FIG. 76

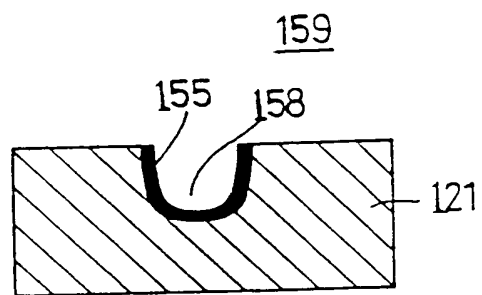


FIG. 77

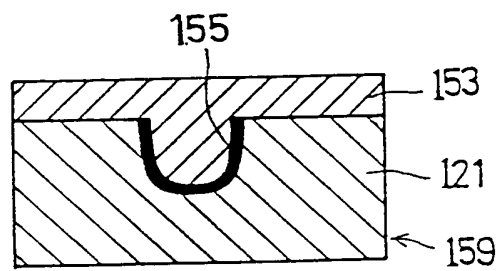


FIG. 78

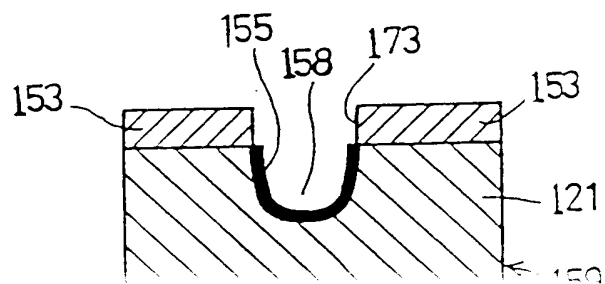


FIG. 79

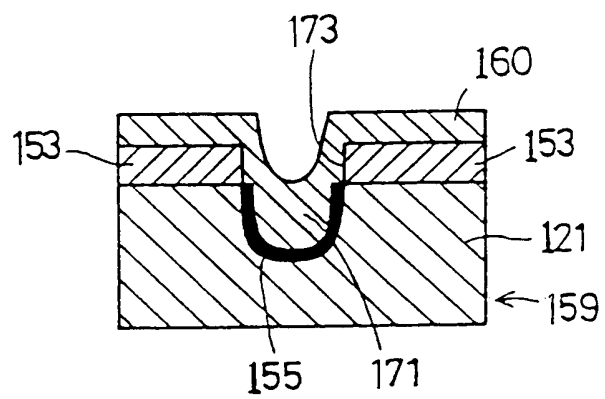


FIG. 80

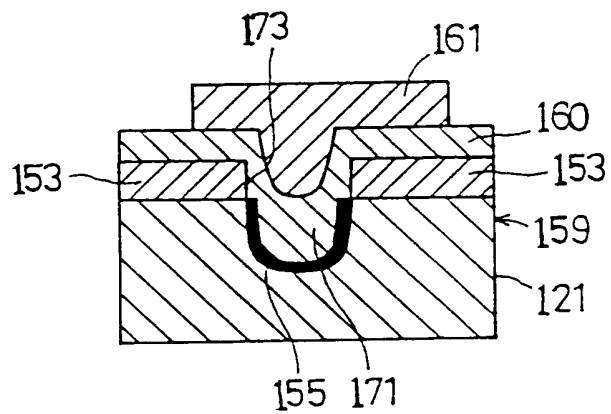


FIG. 81

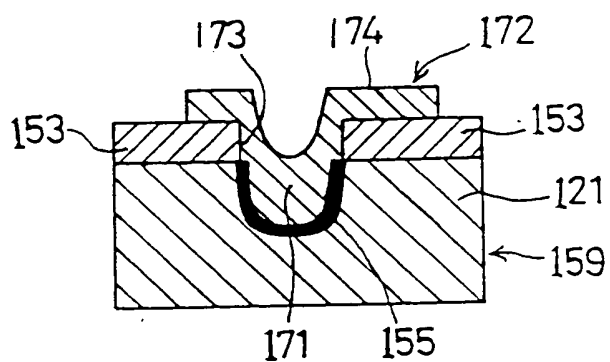


FIG. 82

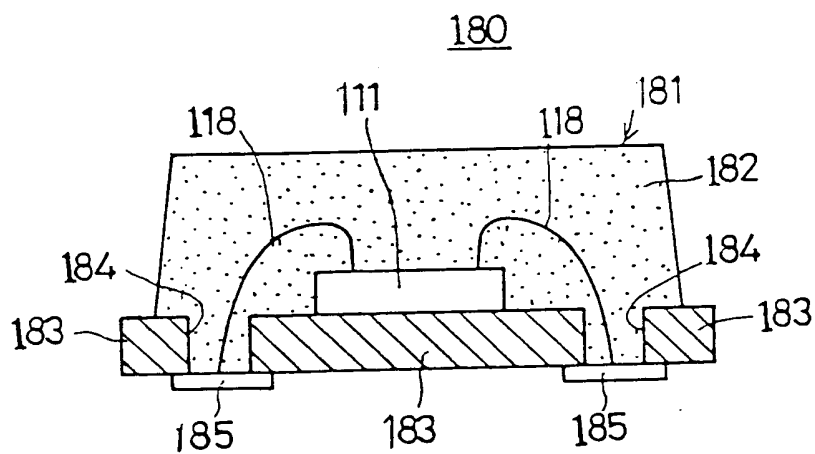




FIG. 83

110

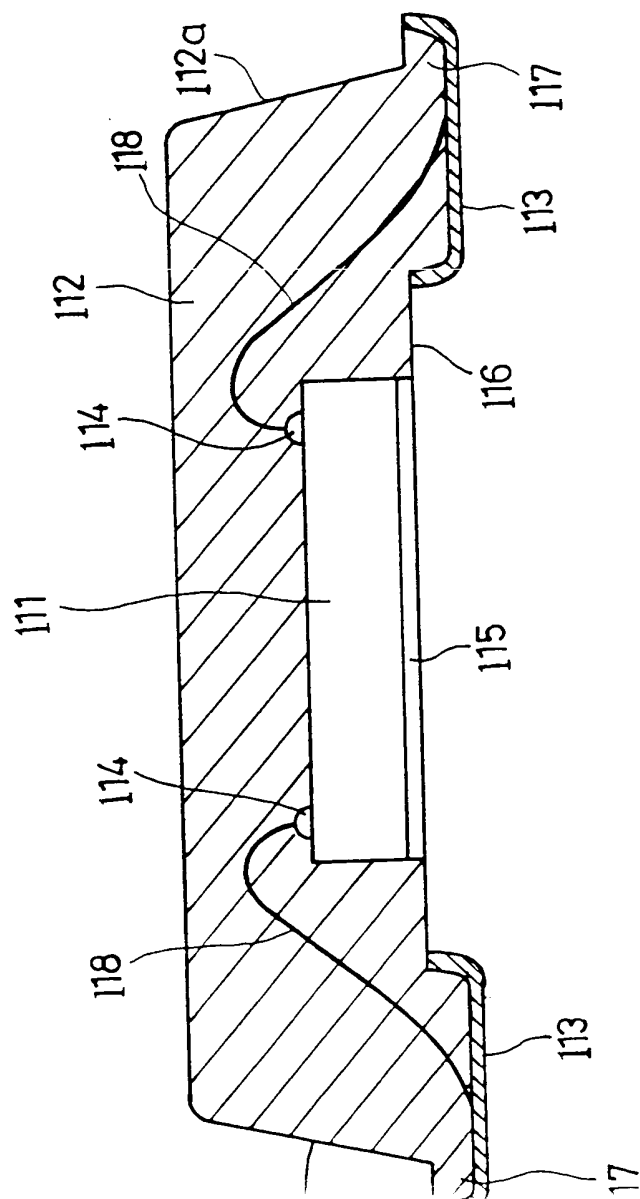


FIG. 84A

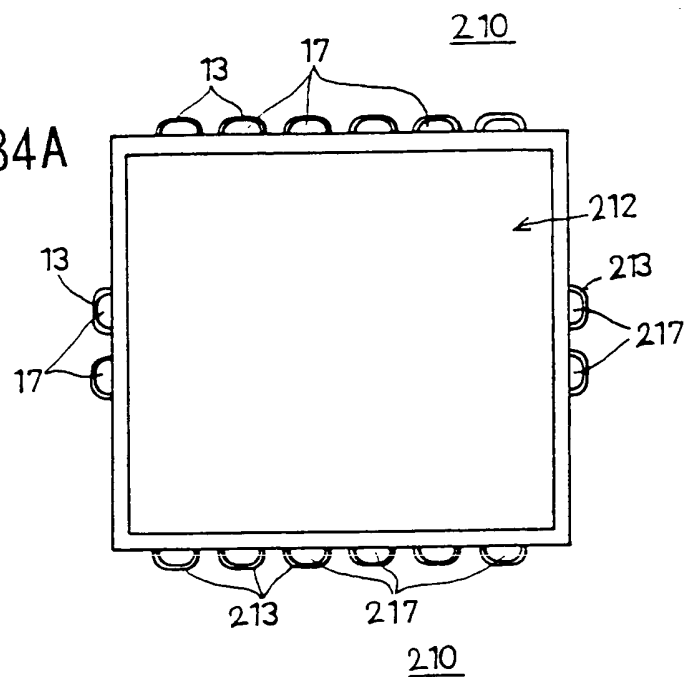


FIG. 84B

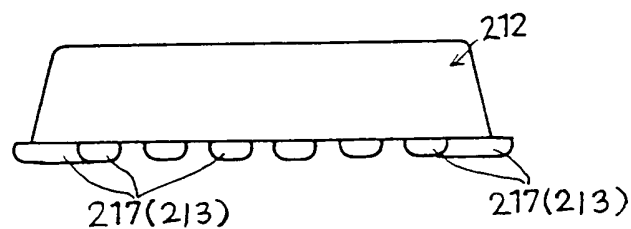


FIG. 84C

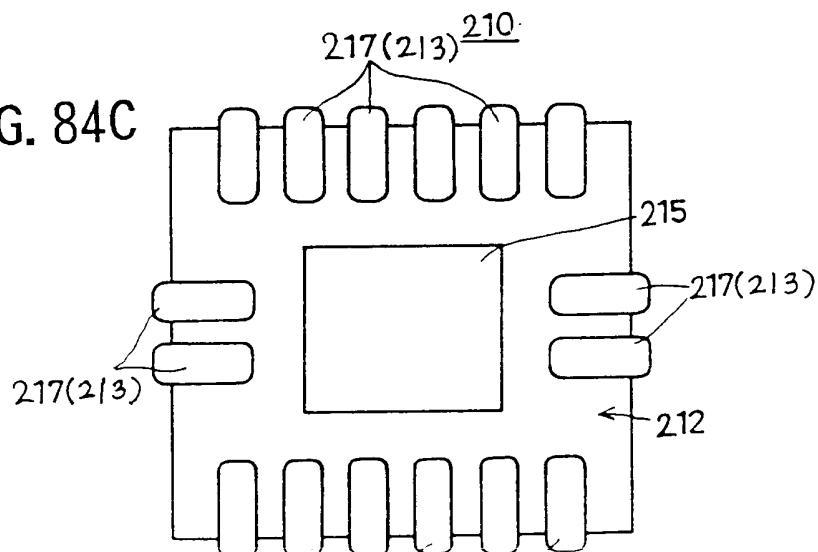




FIG. 86

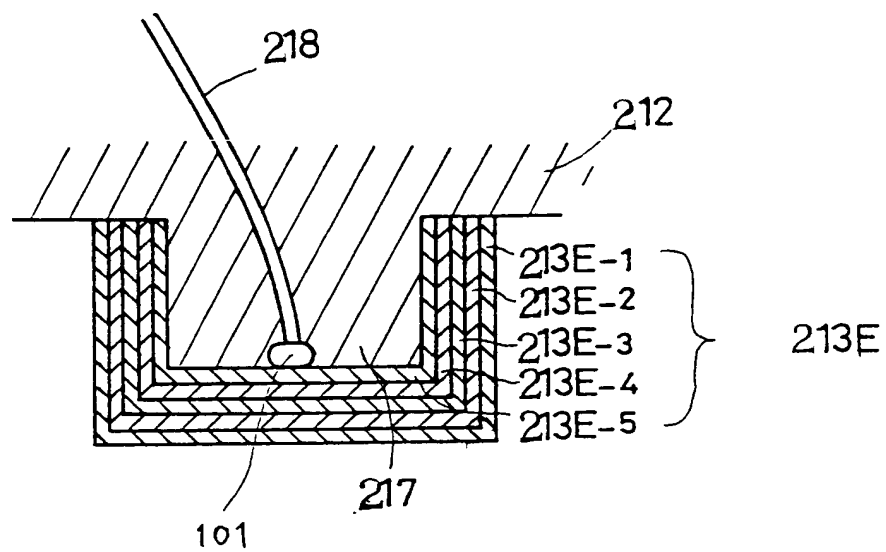


FIG. 87

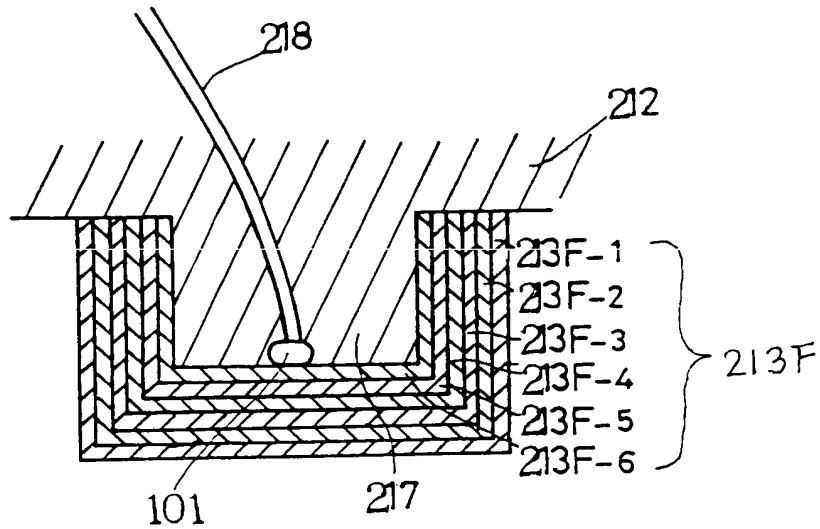


FIG. 88

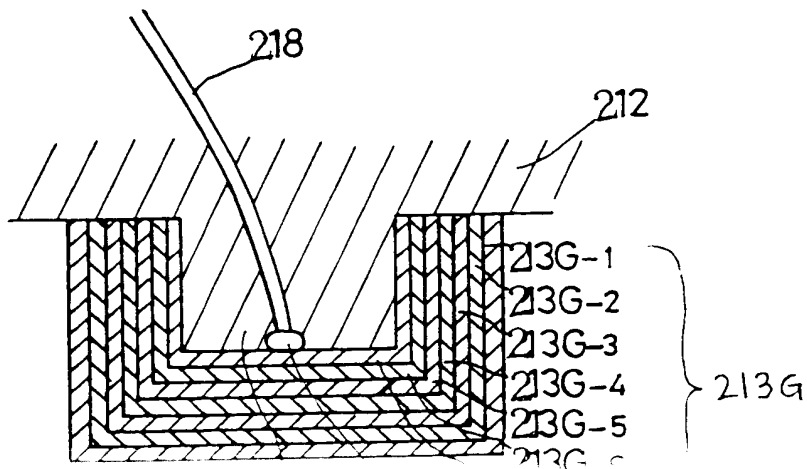


FIG. 89A

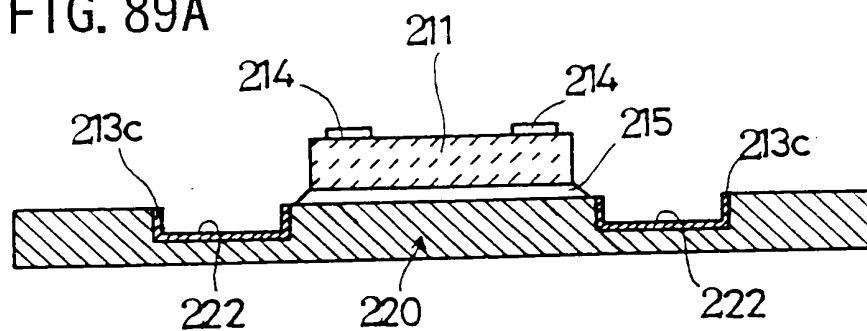


FIG. 89B

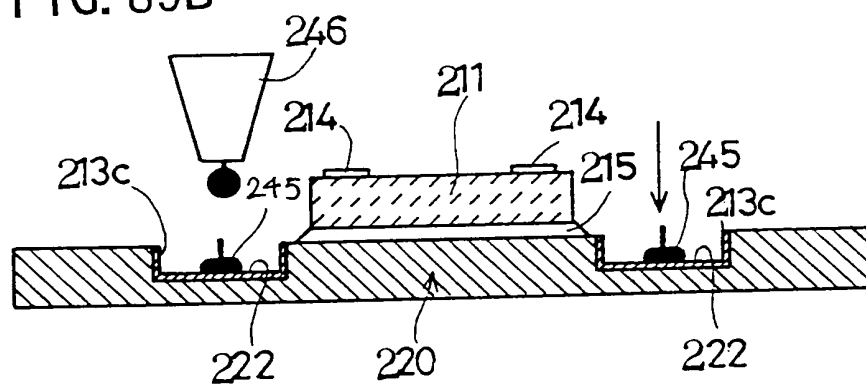


FIG. 89C

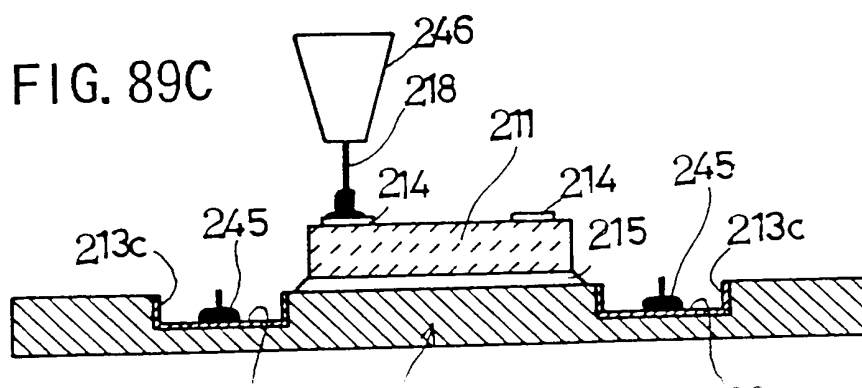


FIG. 89D

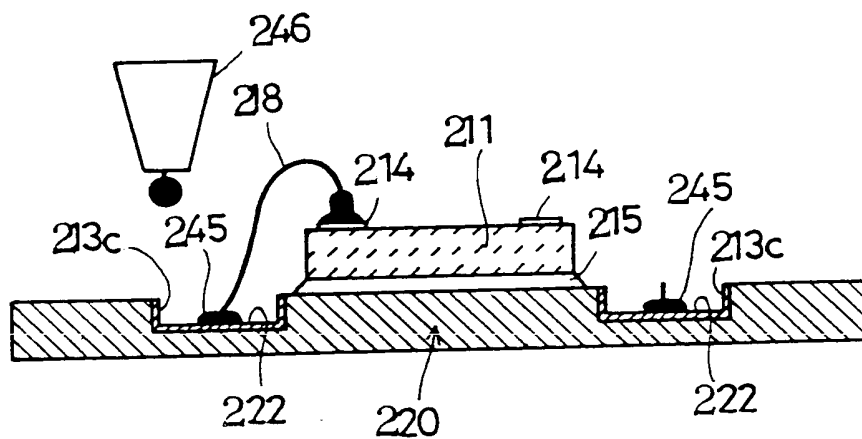


FIG. 89E

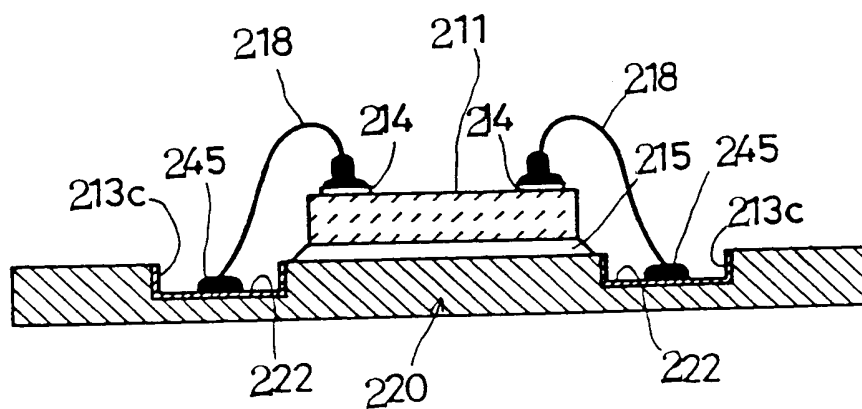


FIG. 90A

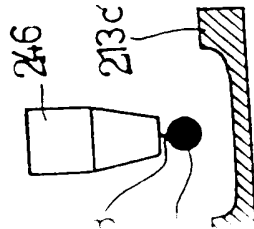


FIG. 90D

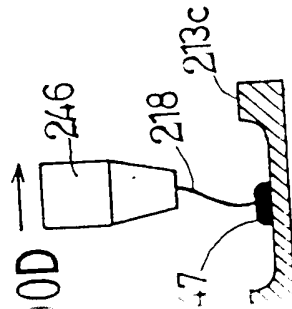


FIG. 90G

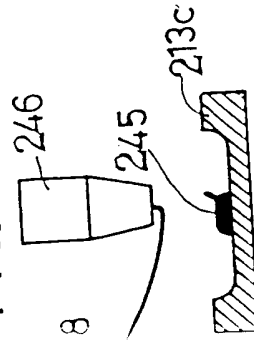


FIG. 90B

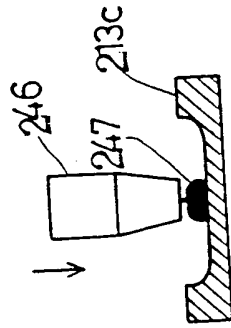


FIG. 90E

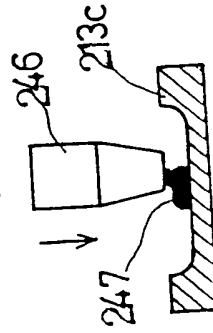


FIG. 90H

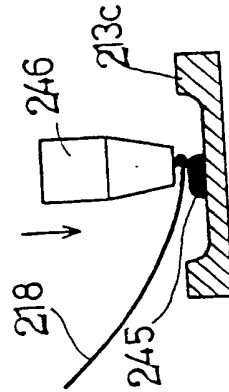


FIG. 90C

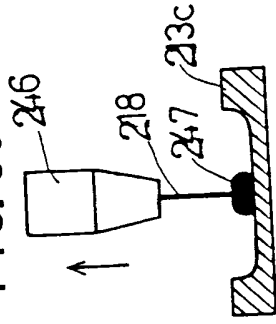


FIG. 90F

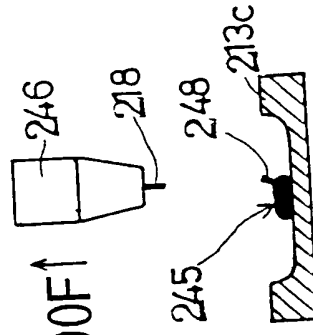
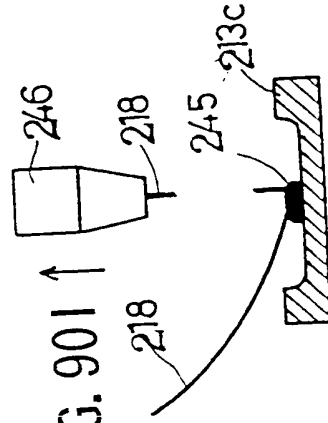


FIG. 90I





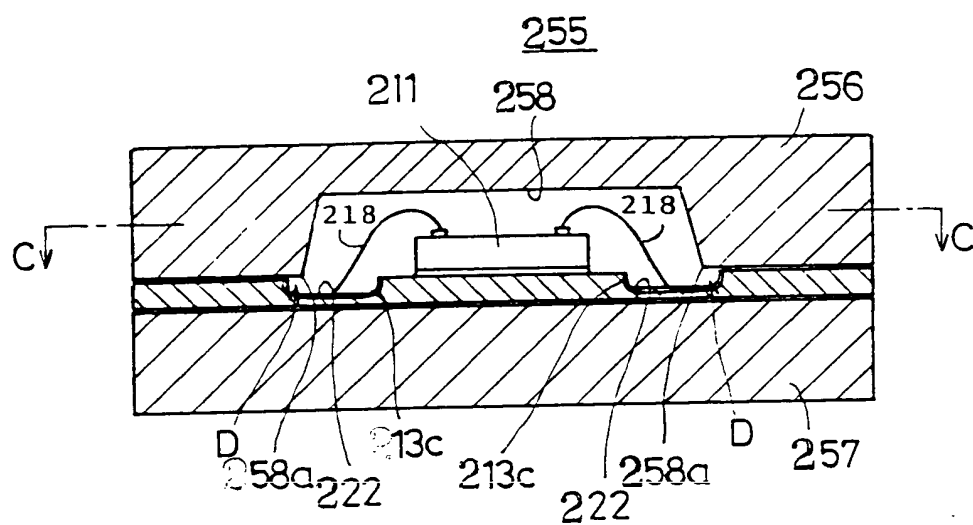


FIG. 92

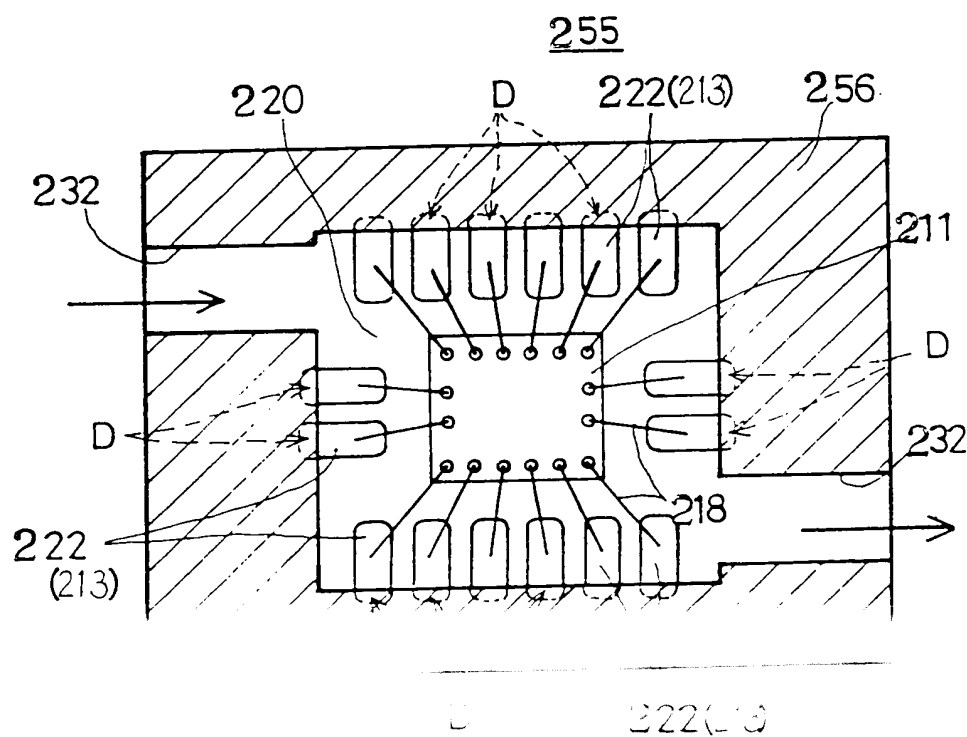


FIG. 93

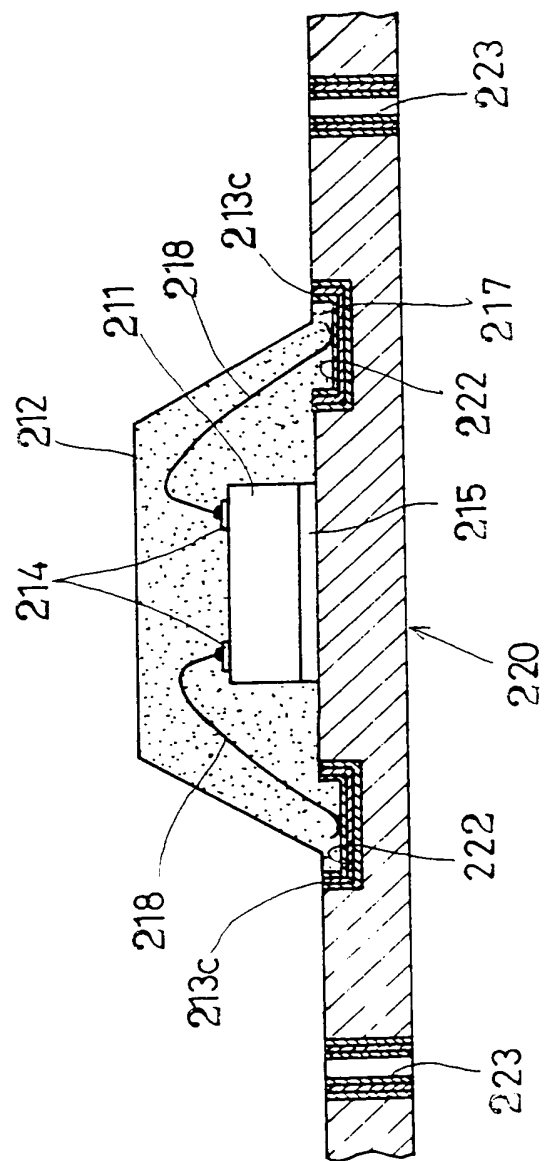


FIG. 94

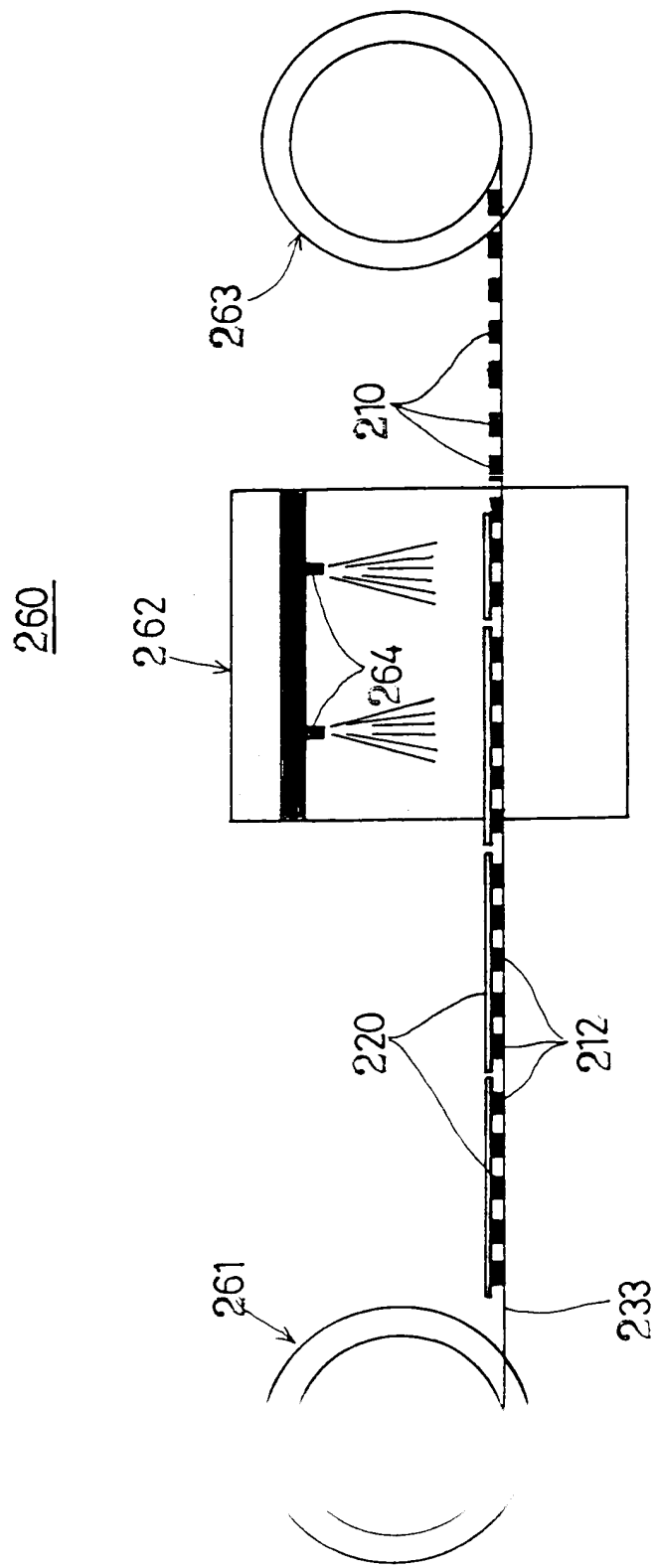


FIG. 95

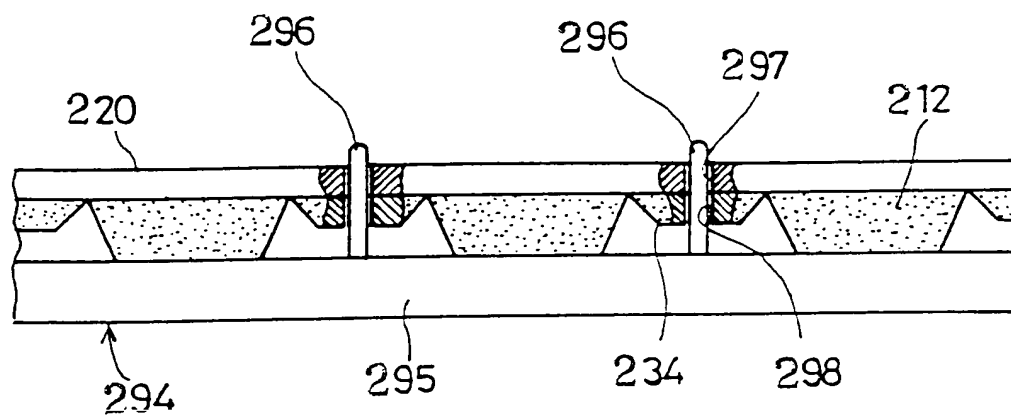


FIG. 96

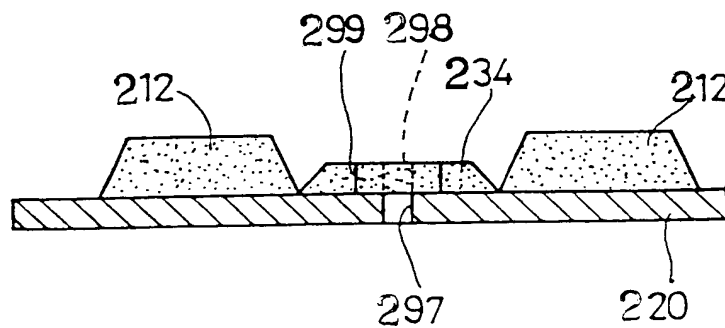


FIG. 97

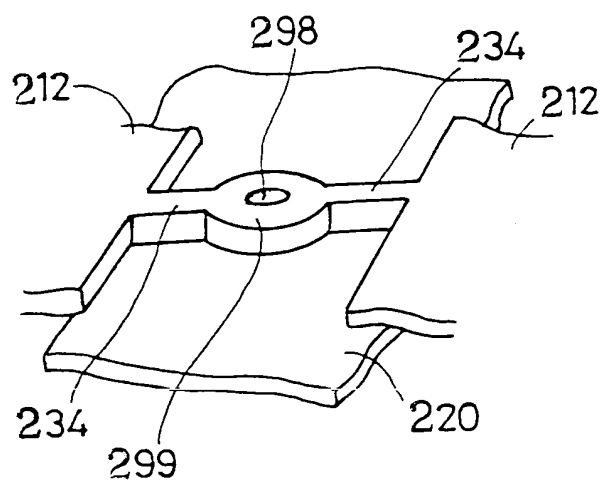


FIG. 98A

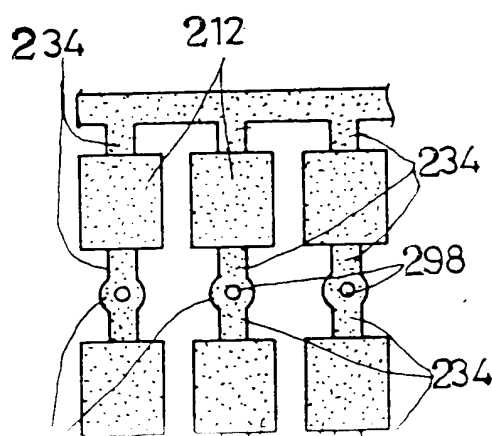


FIG. 98B

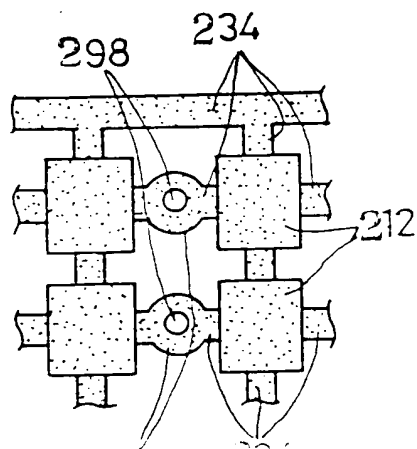


FIG. 99A

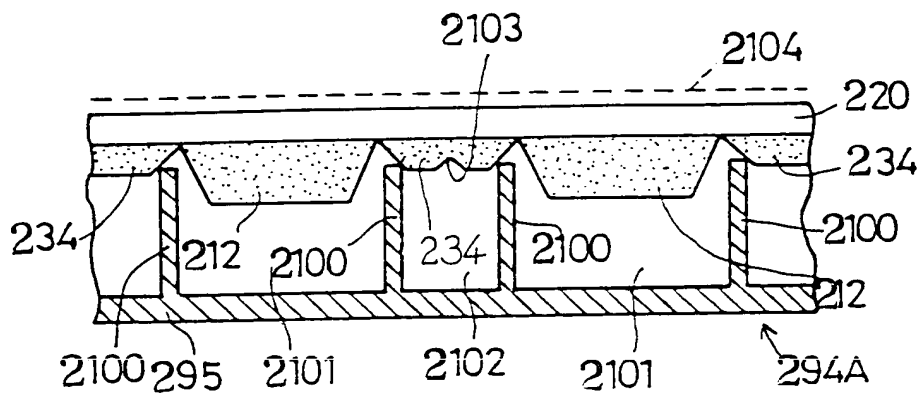


FIG. 99B

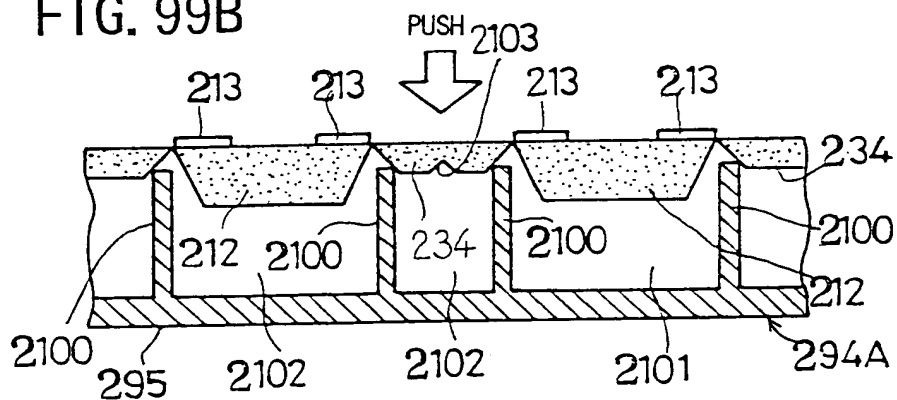


FIG. 99C

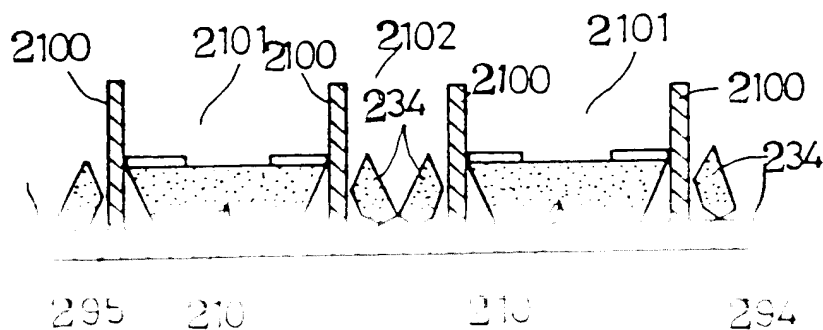


FIG. 100A

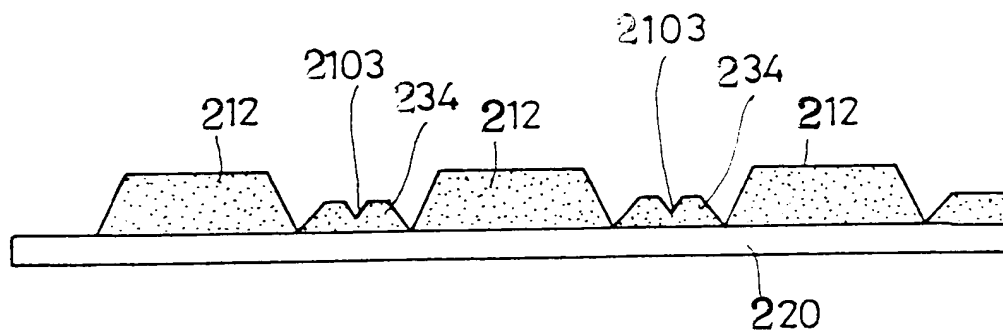


FIG. 100B

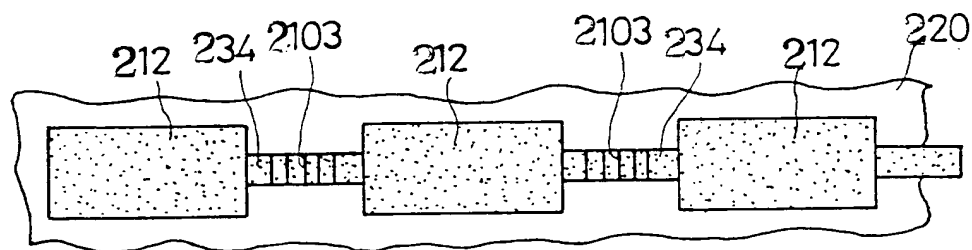


FIG. 101

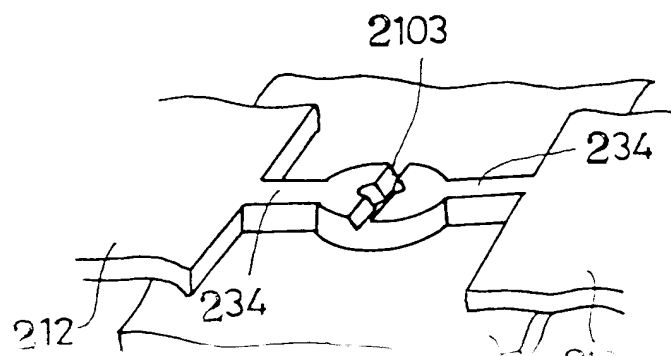


FIG. 102A

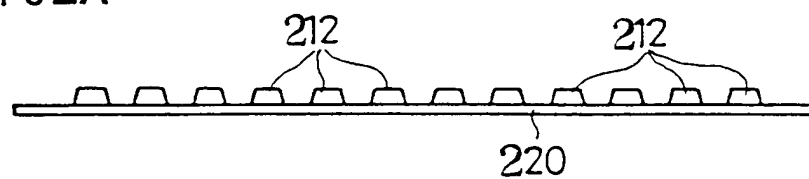


FIG. 102B

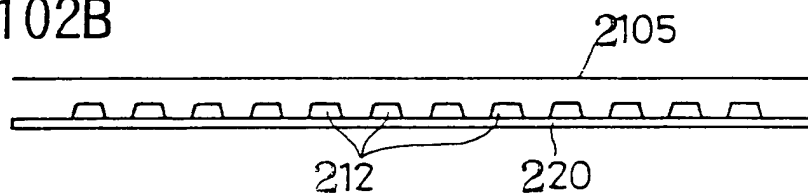


FIG. 102C

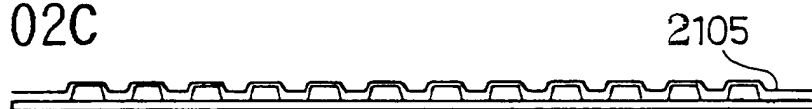


FIG. 102D

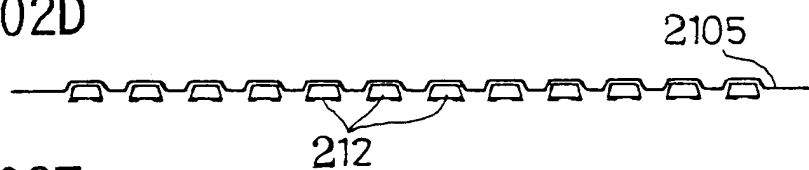


FIG. 102E

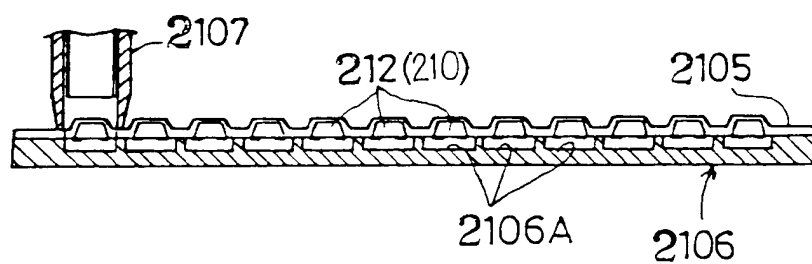




FIG. 103A

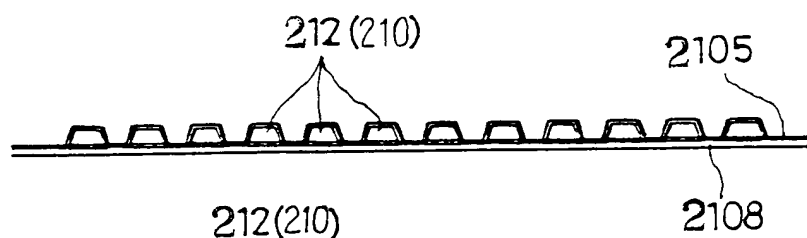


FIG. 103B

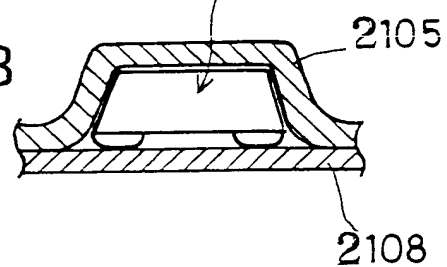


FIG. 104

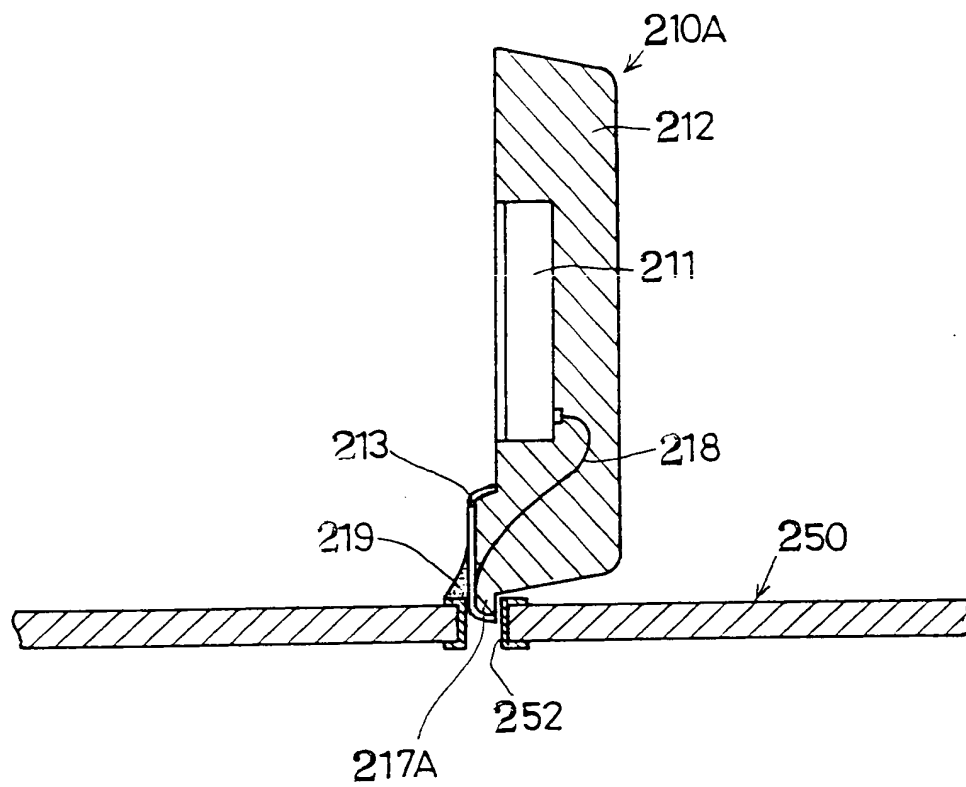


FIG. 105

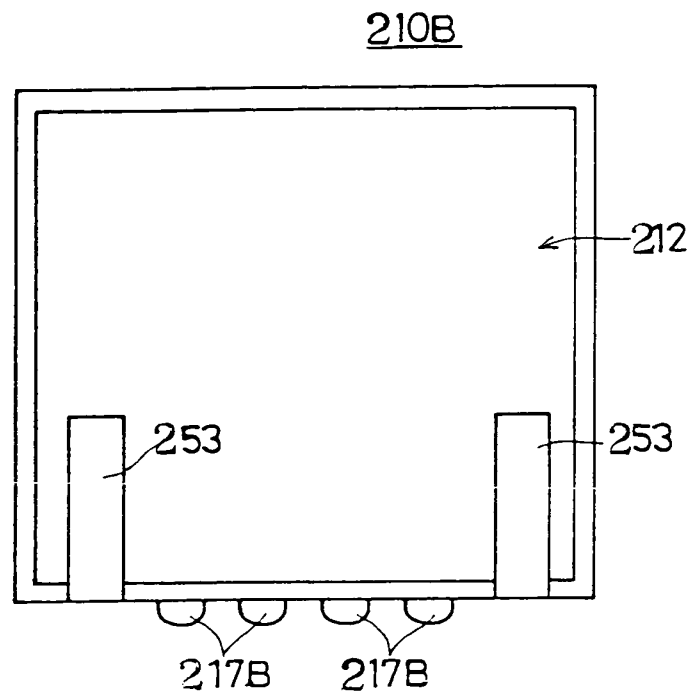


FIG. 106

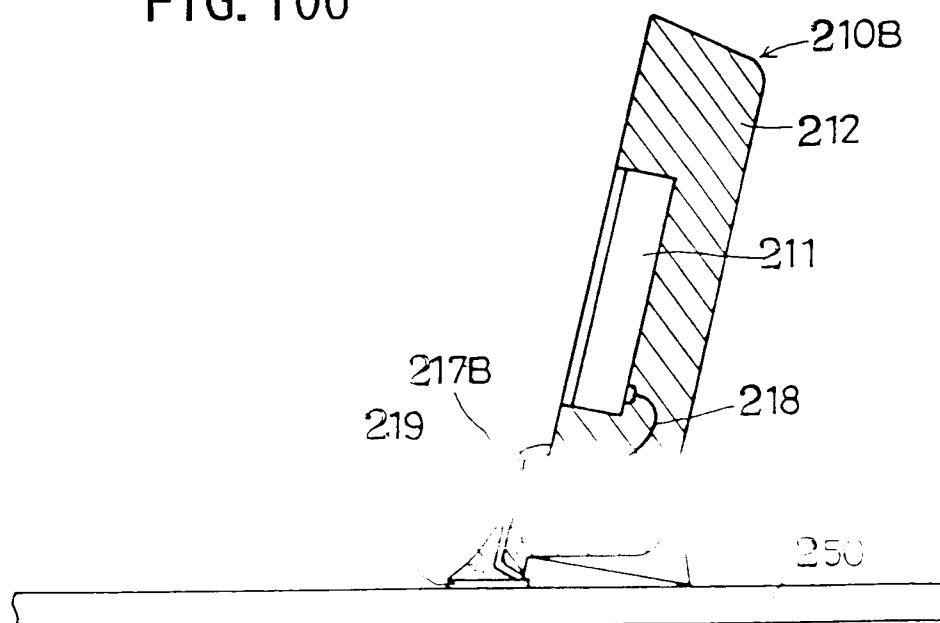


FIG. 107

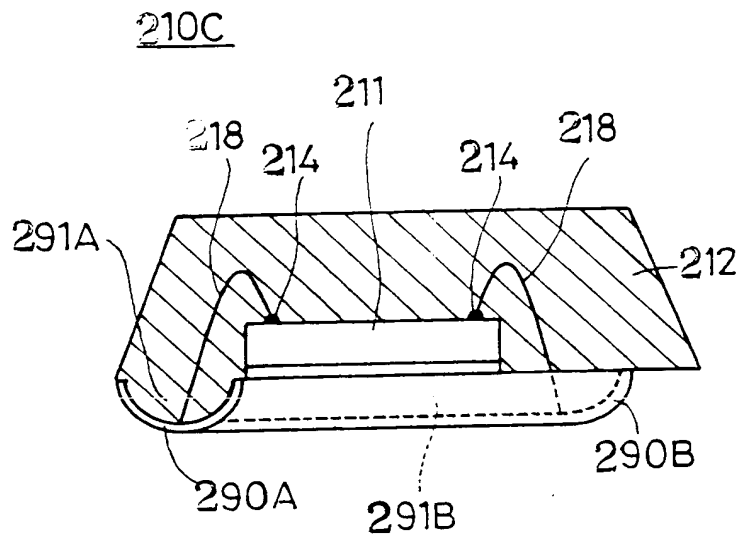


FIG. 108

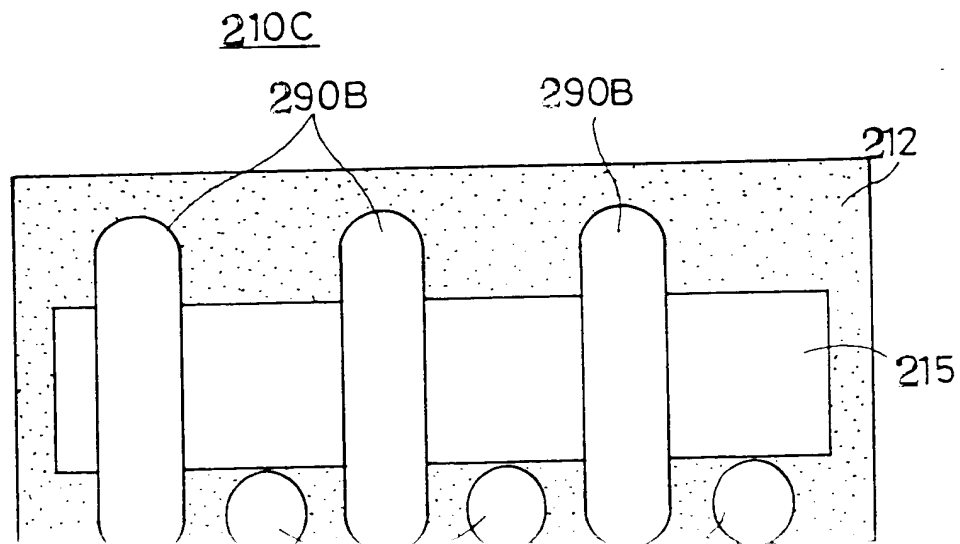


FIG. 109

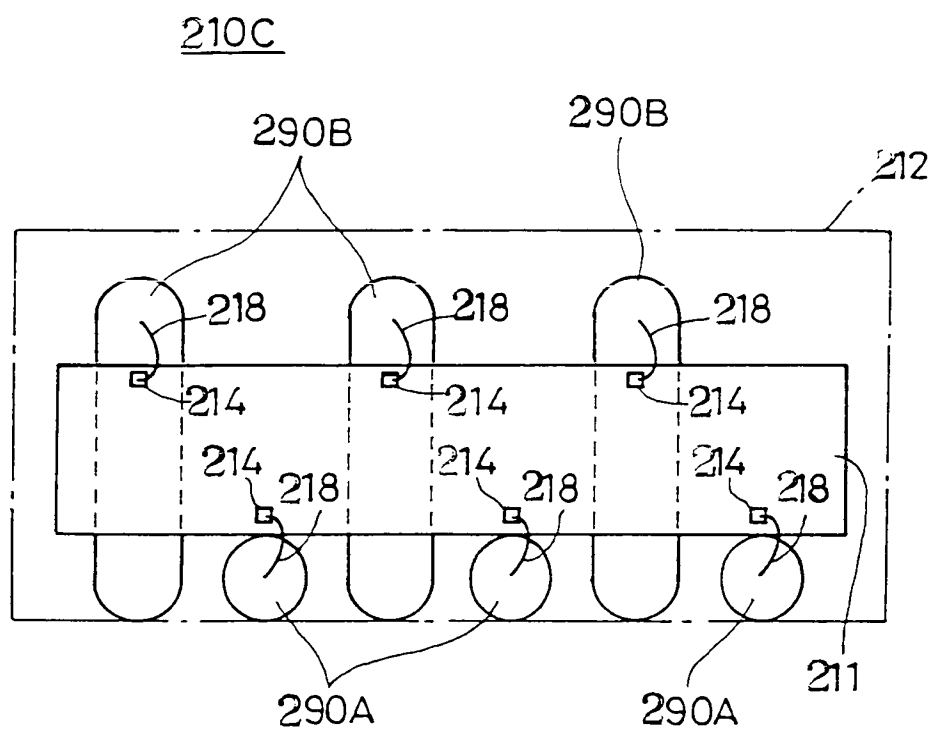


FIG. 110

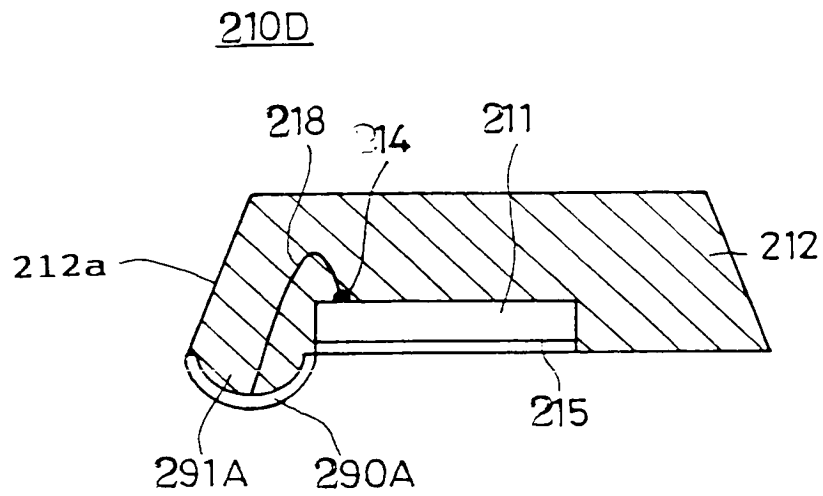


FIG. 111

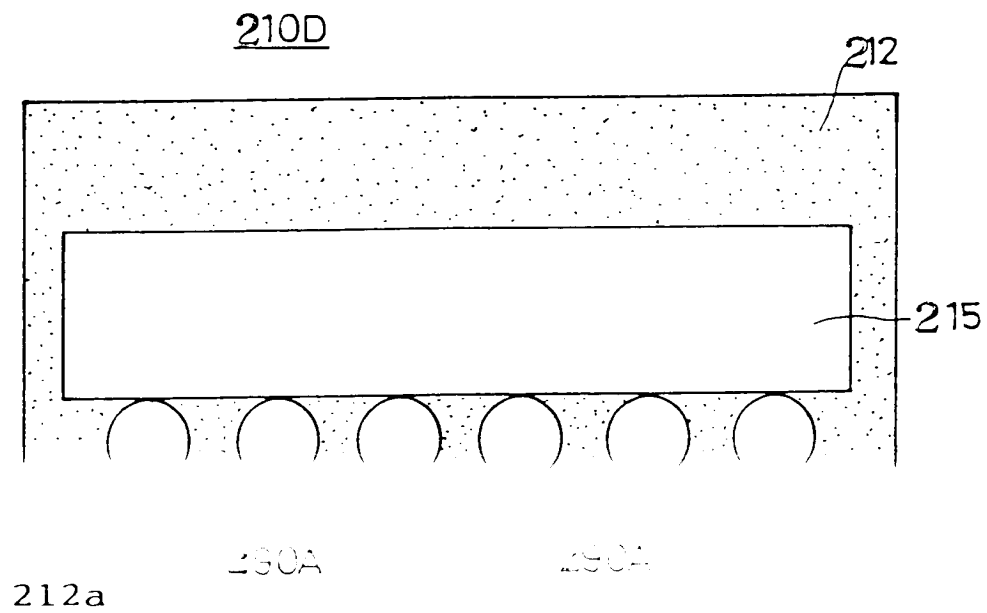


FIG. 112

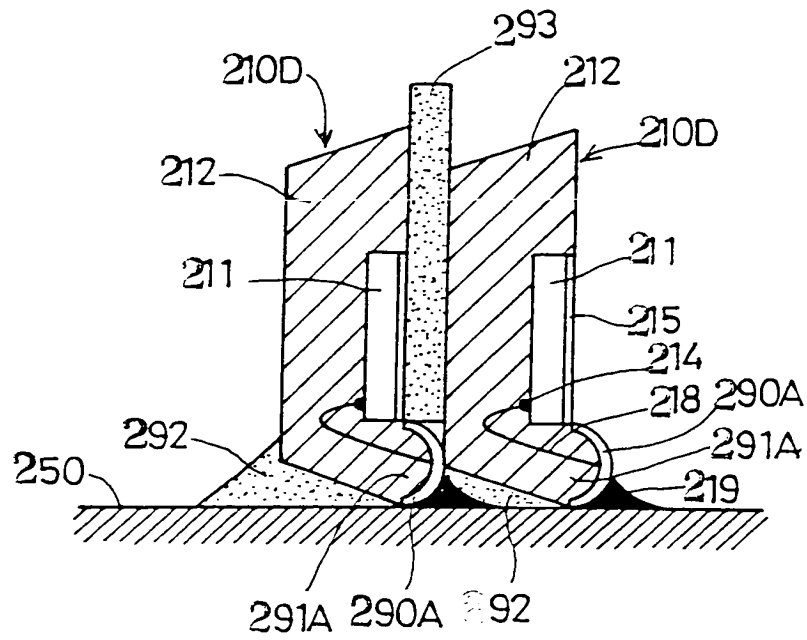


FIG. 113

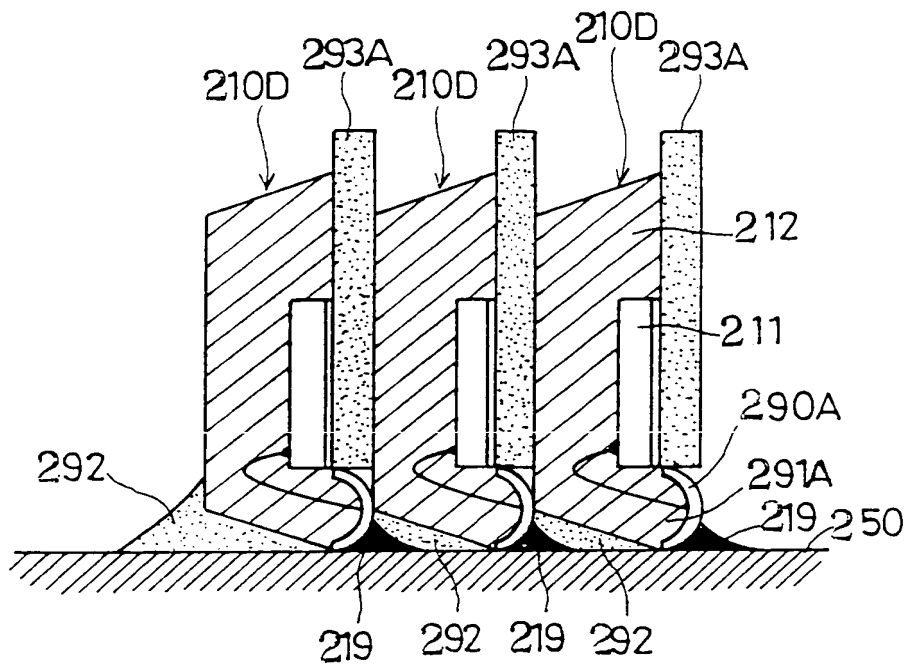


FIG. 114

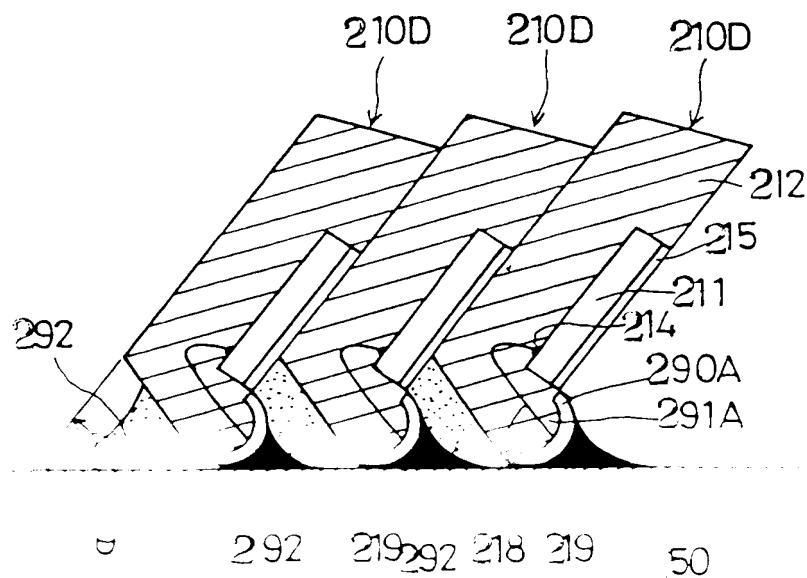




FIG. 115

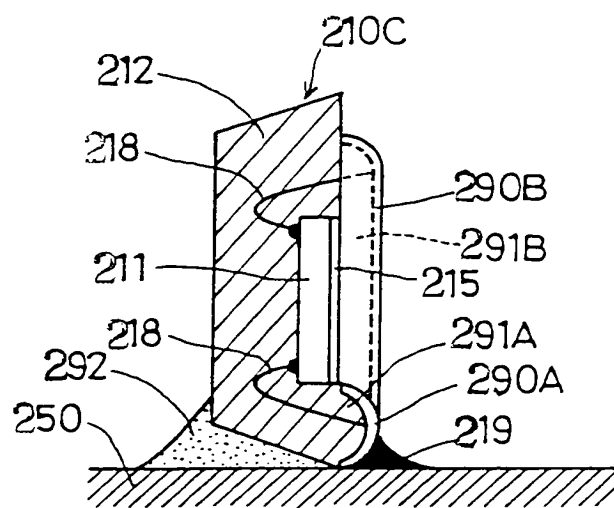


FIG.116

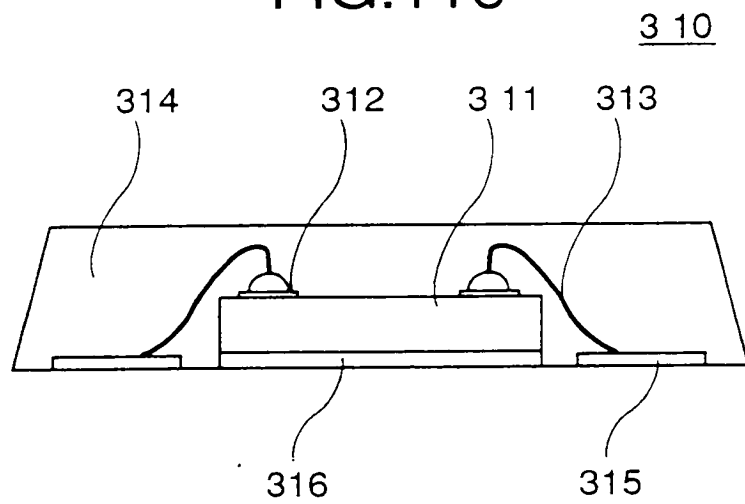


FIG.117

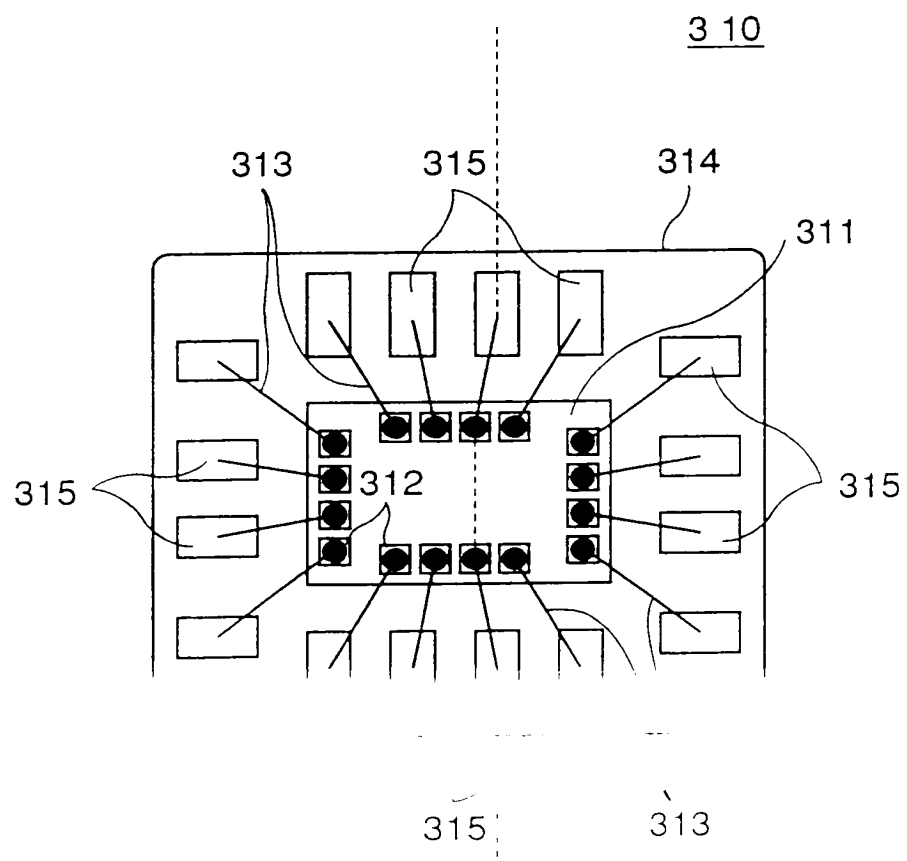


FIG.118

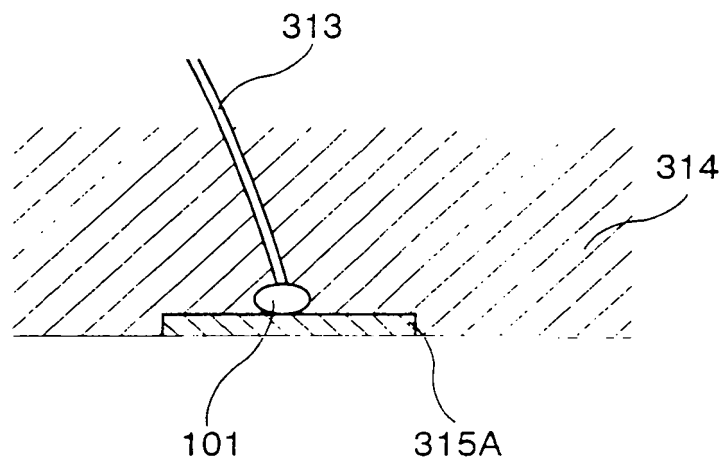


FIG.119

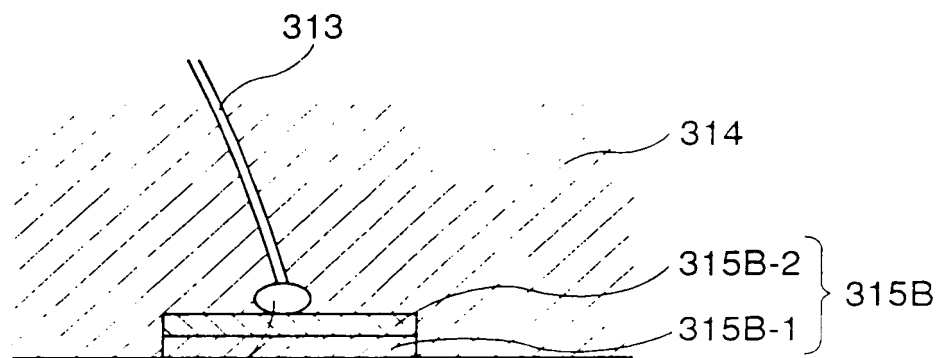


FIG.120

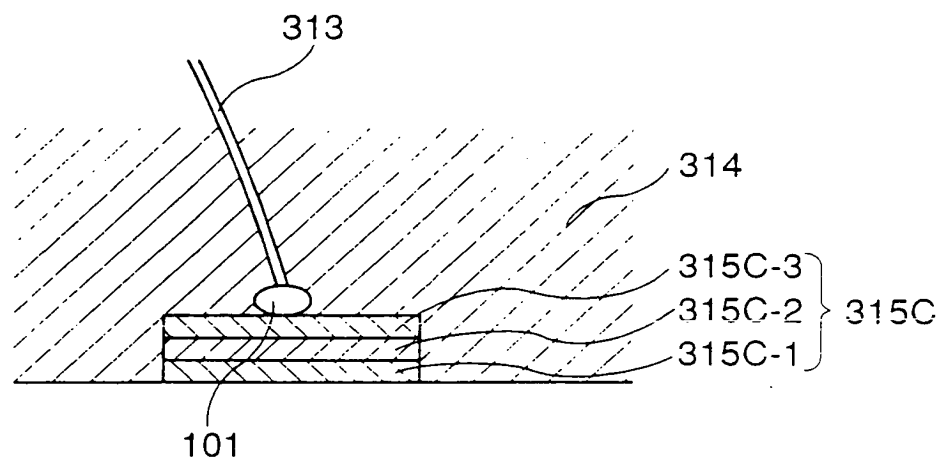


FIG.121

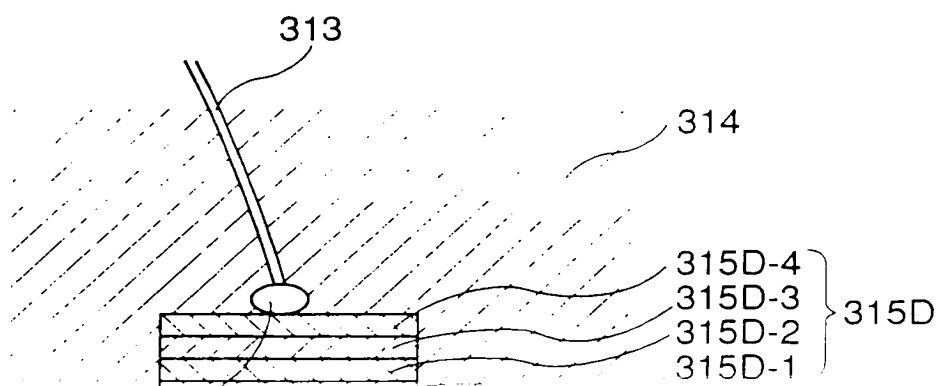


FIG.122

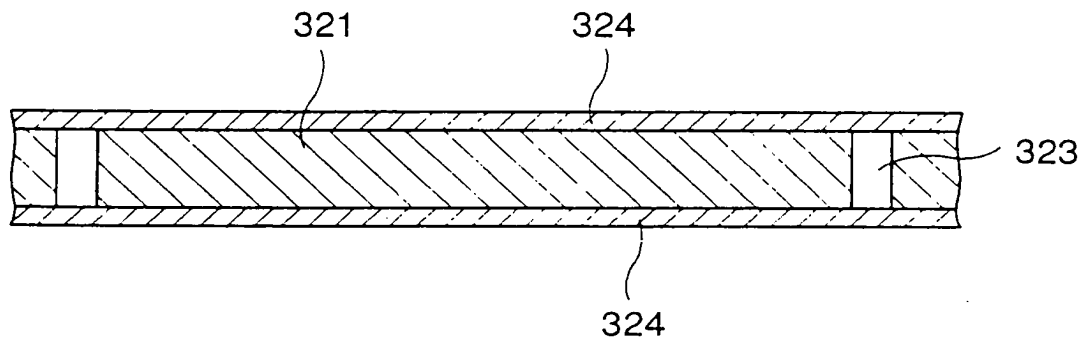


FIG.123

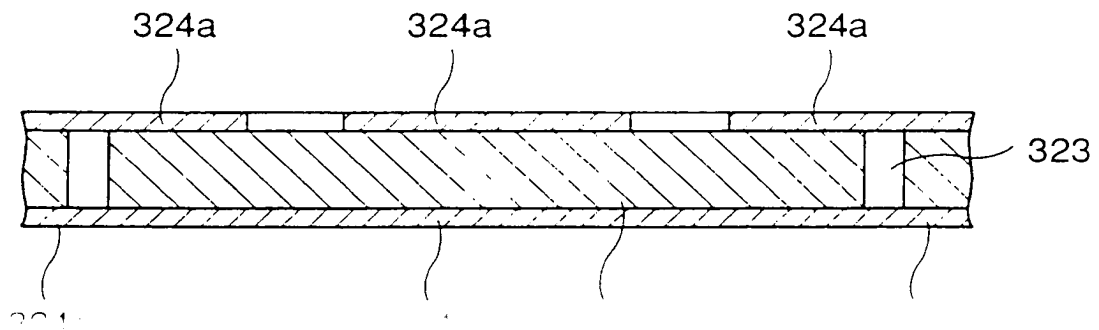


FIG.124

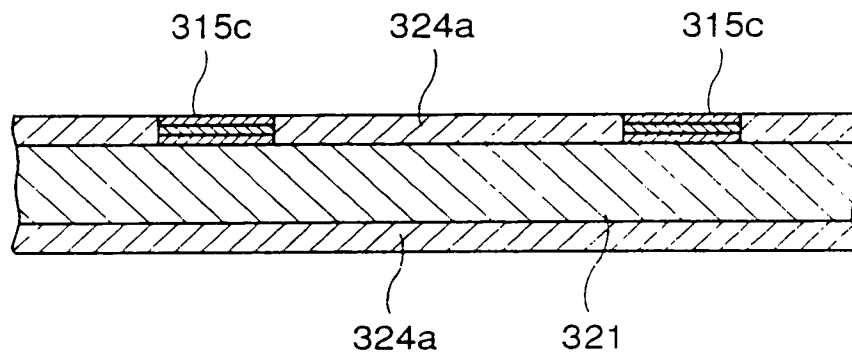


FIG.125

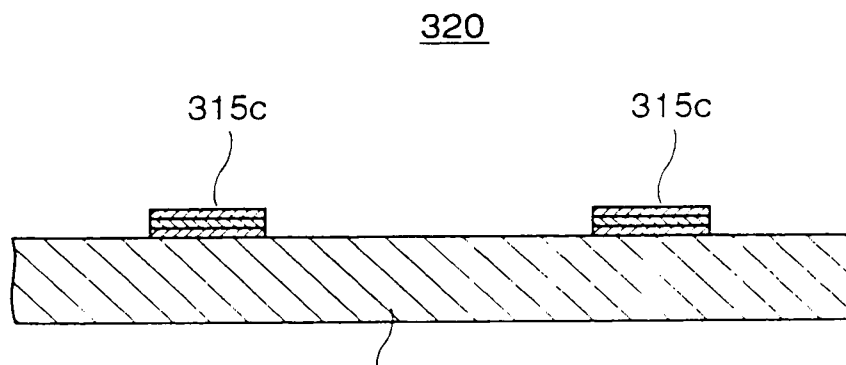


FIG.126

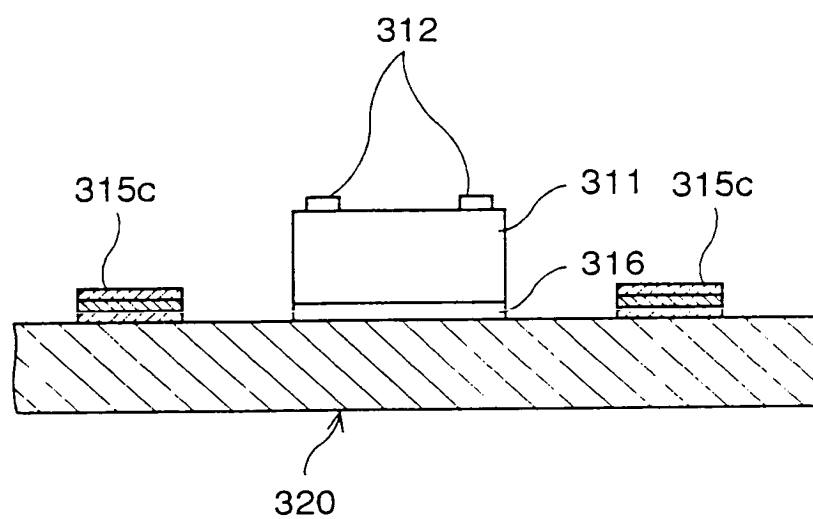


FIG.127

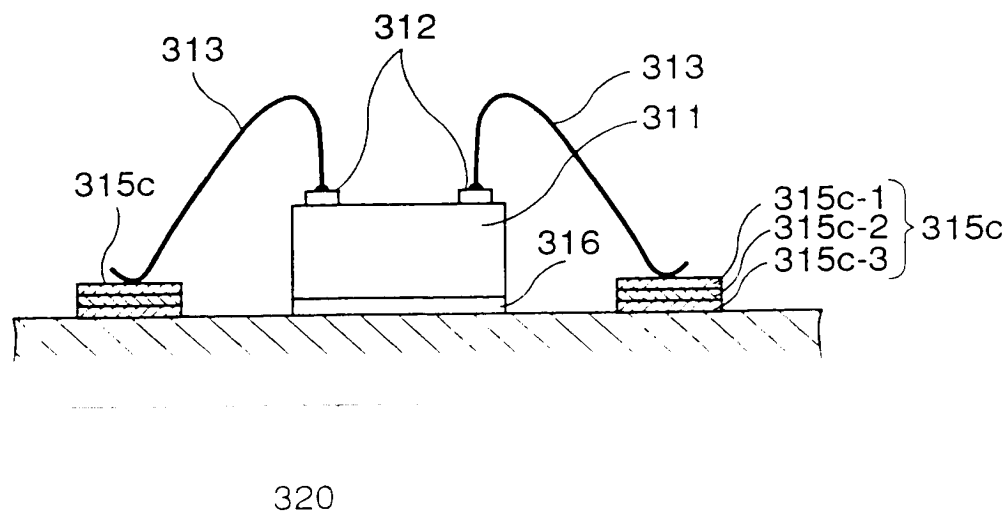


FIG.128

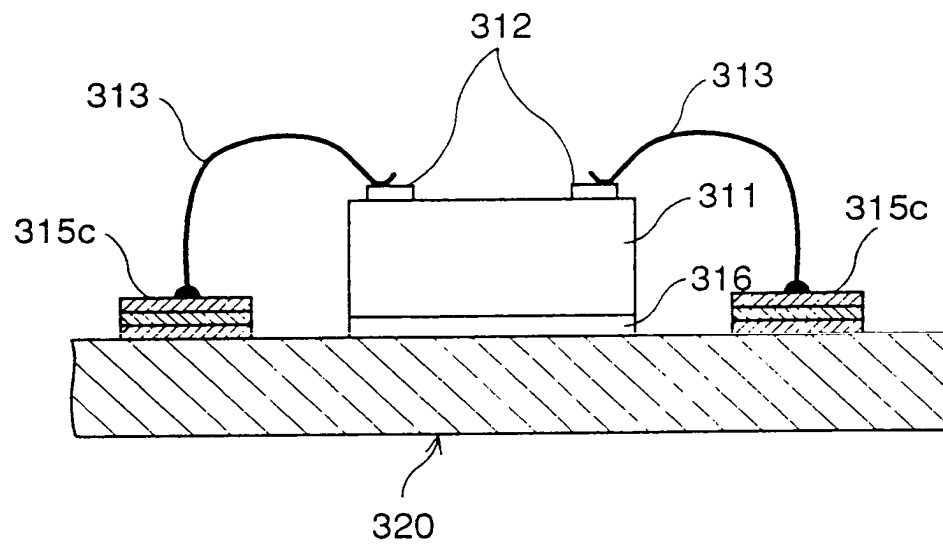


FIG.129

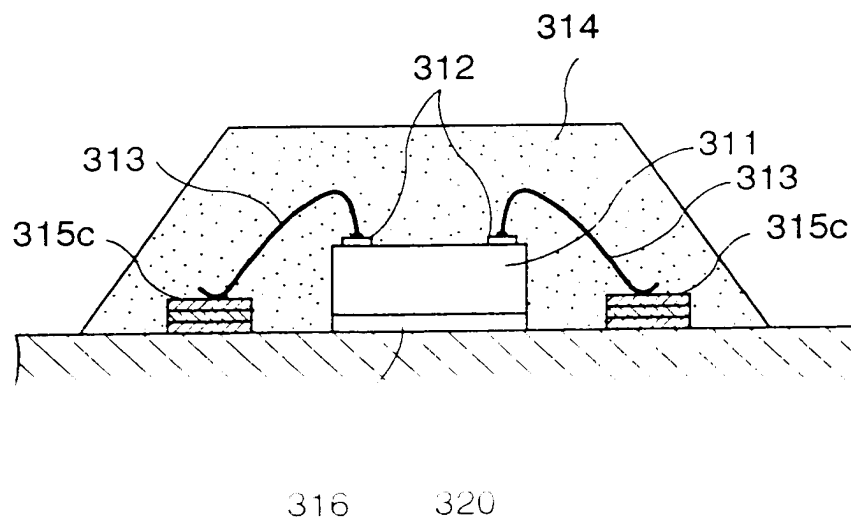
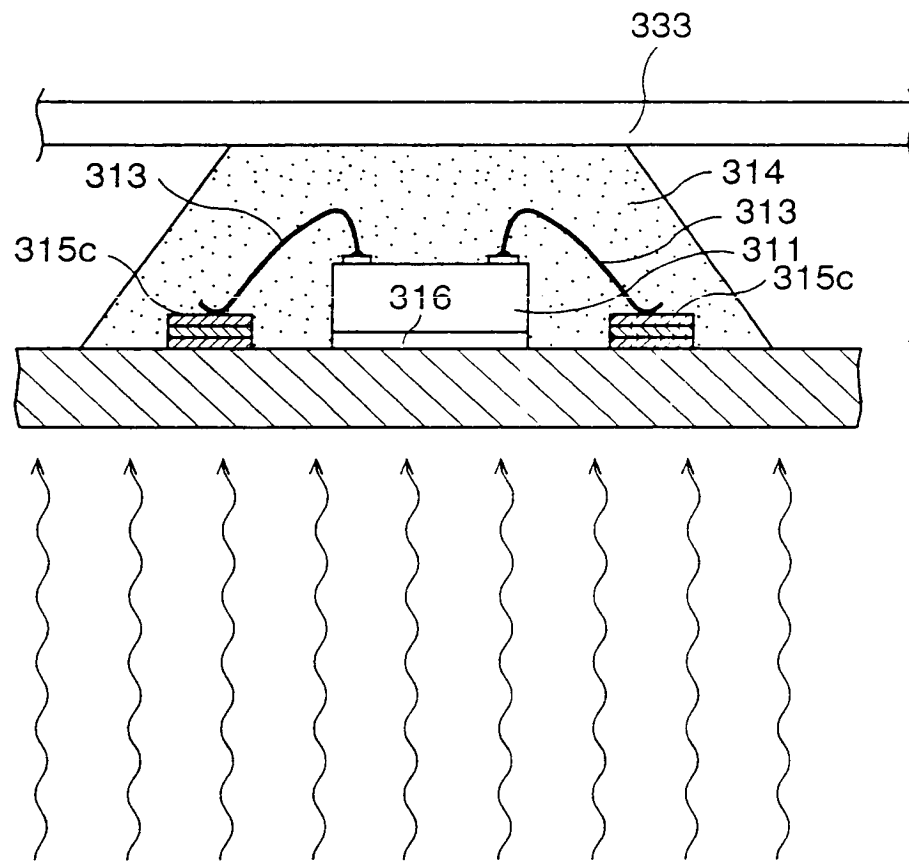




FIG.130



(ETCHING)

FIG.131

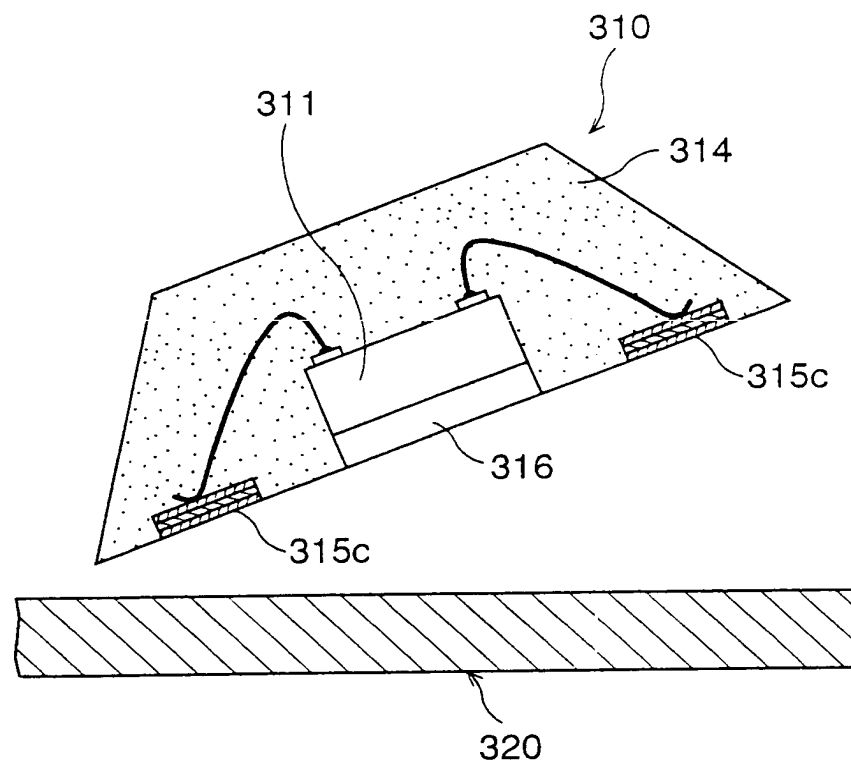


FIG.132A

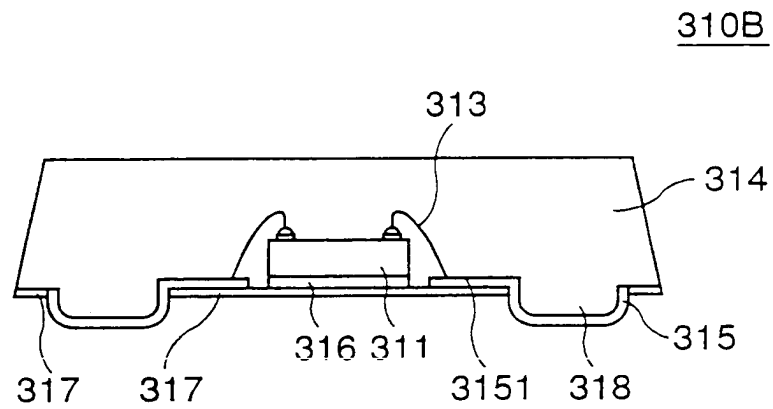


FIG.132B

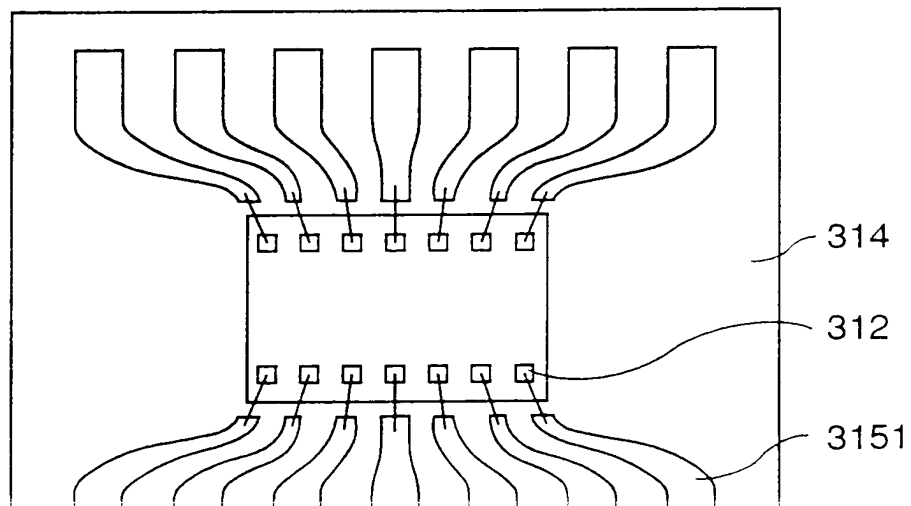


FIG.133

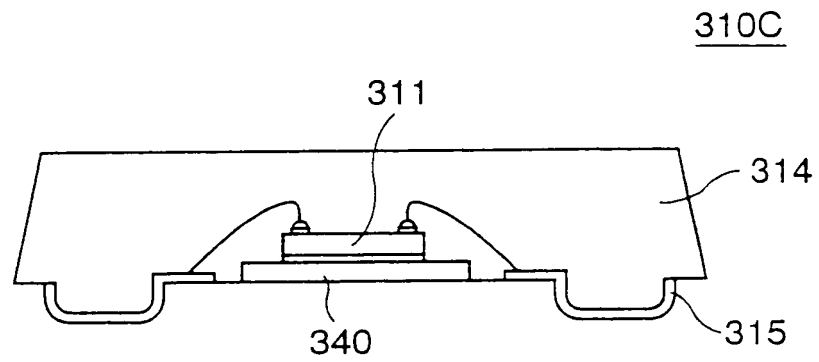


FIG.134

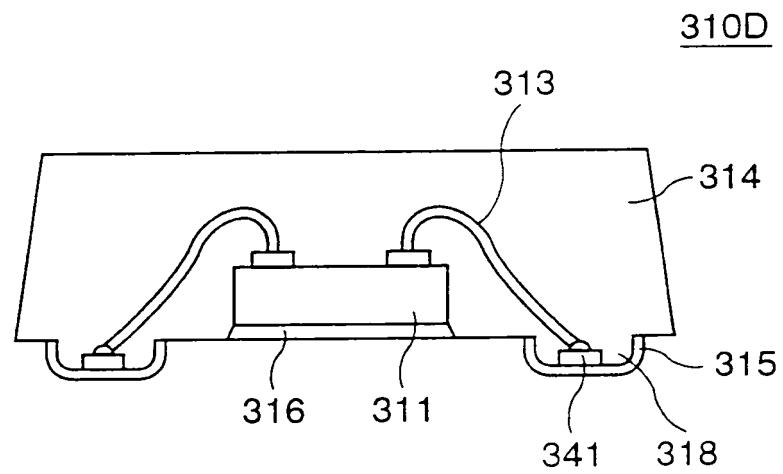


FIG.135

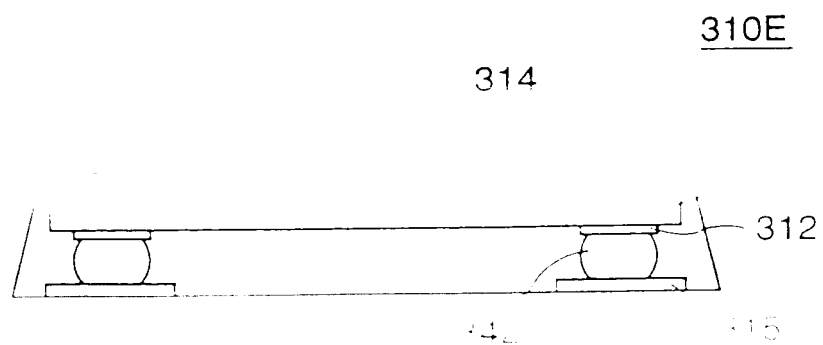


FIG.136A

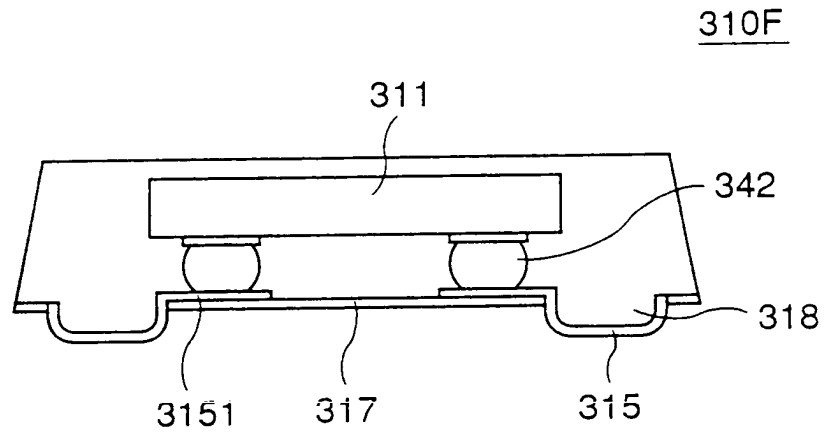


FIG.136B

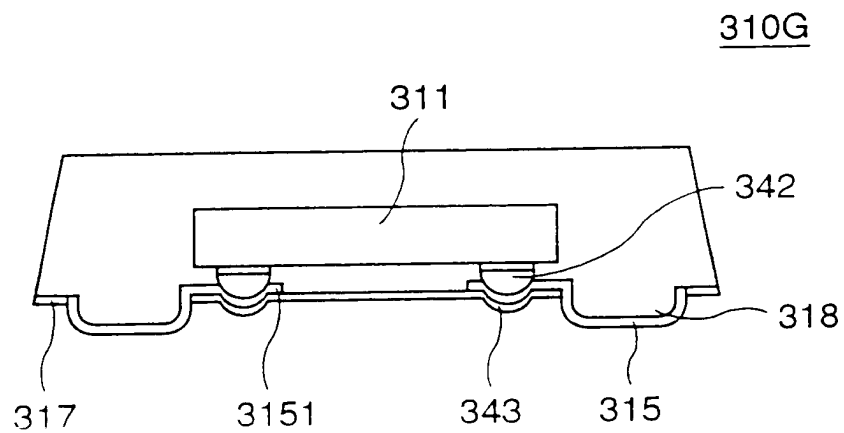


FIG.137

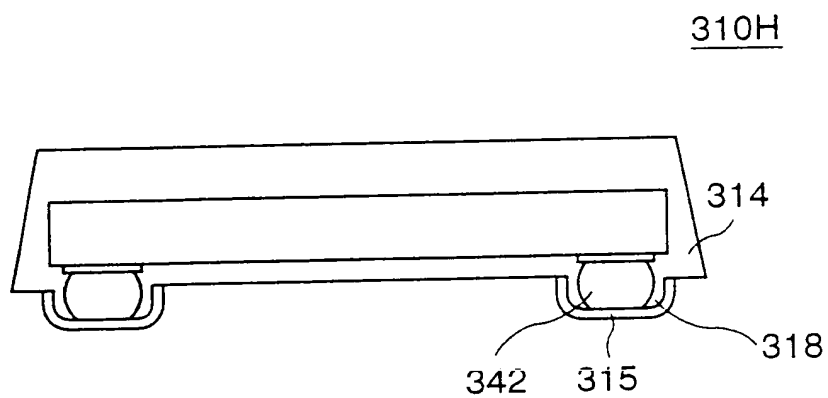


FIG.138

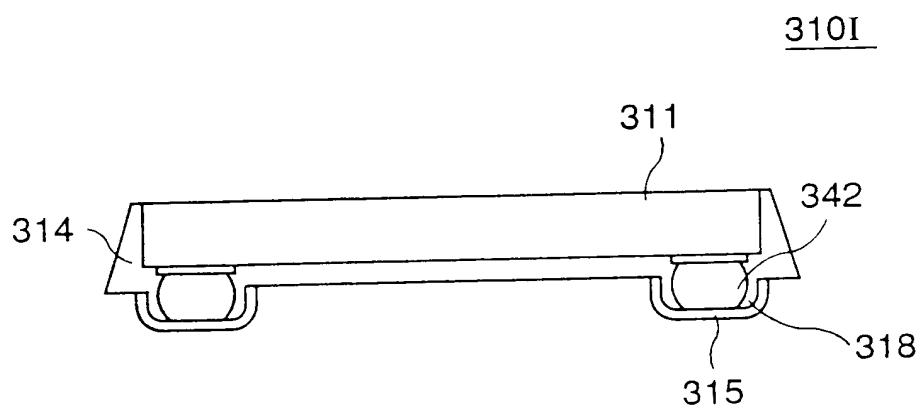


FIG.139A

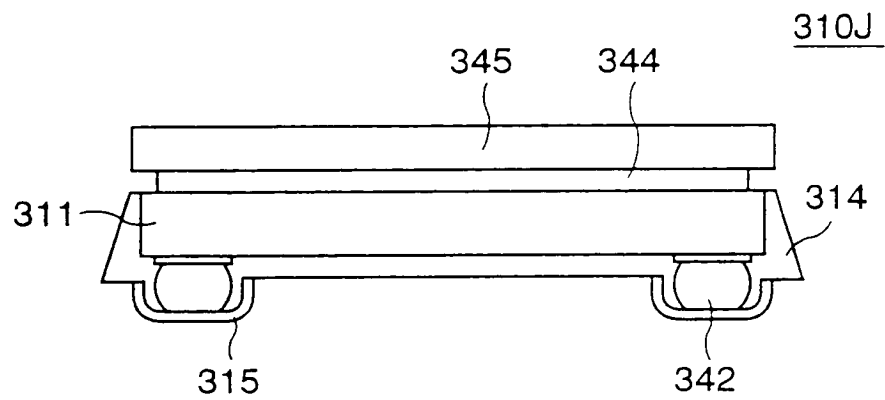


FIG.139B

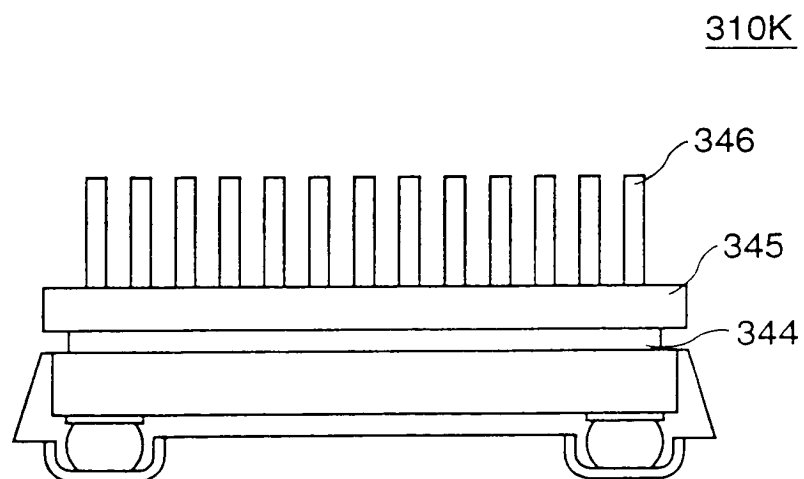


FIG.140

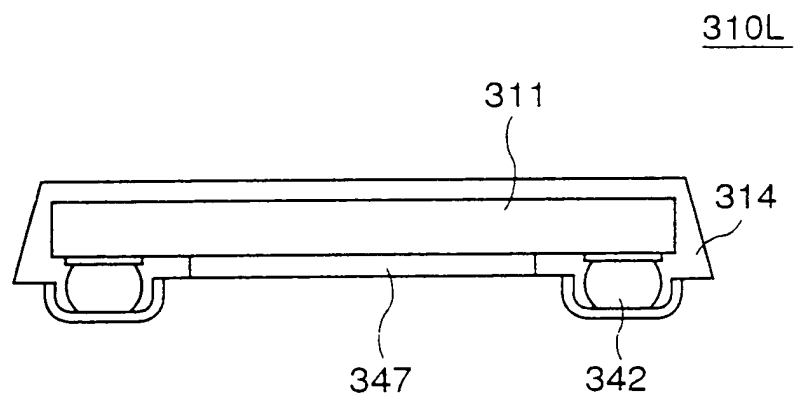




FIG.141A

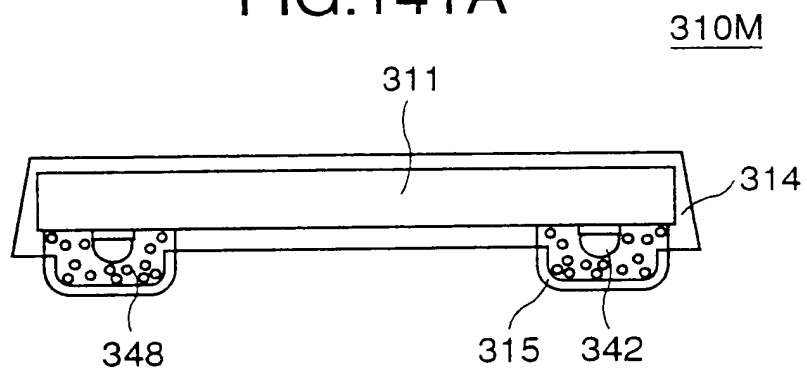


FIG.141B

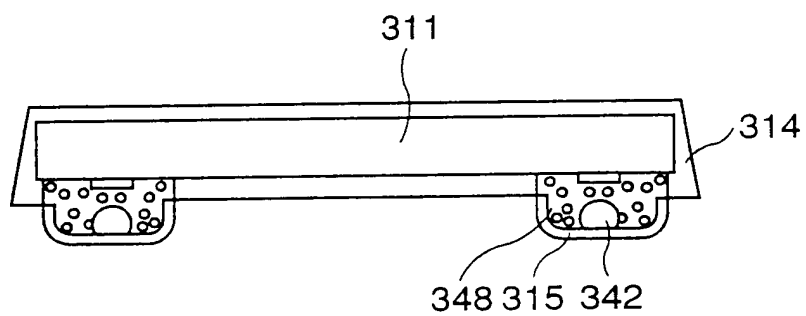


FIG.141C

